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"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

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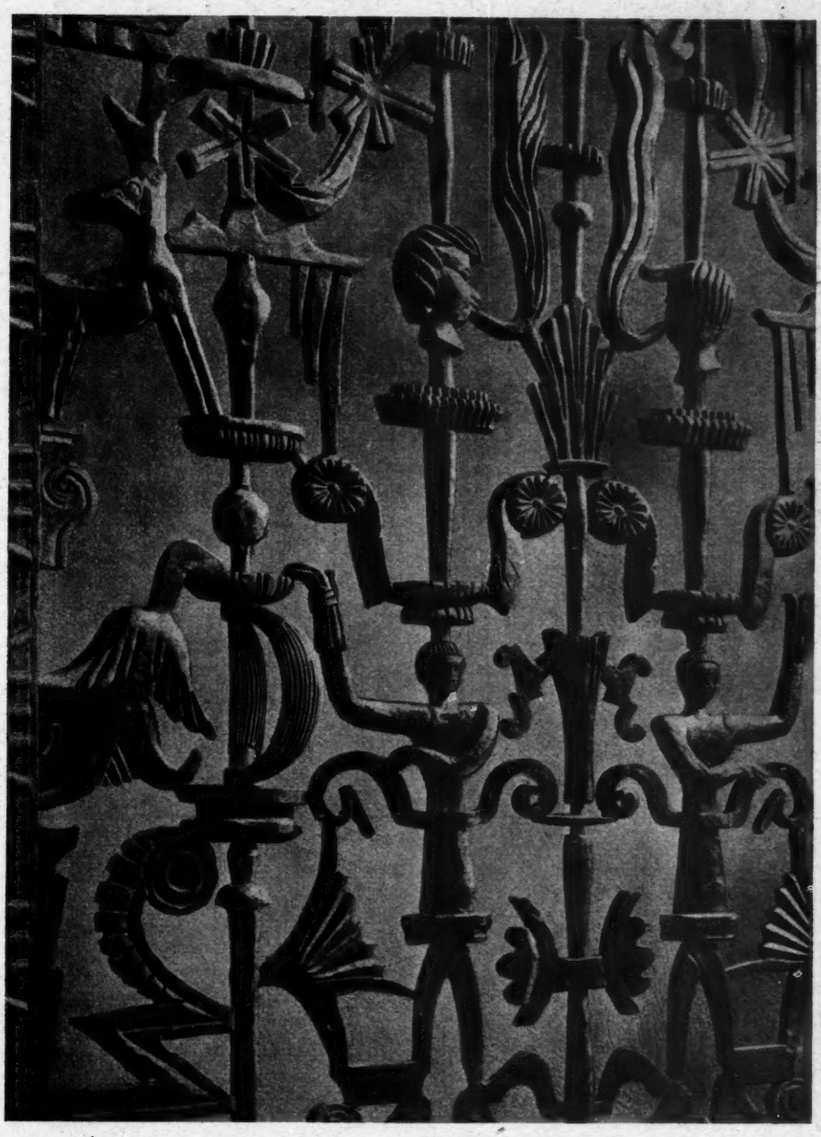


THE SWEDISH MATCH COMPANY BUILDING, STOCKHOLM :

Detail of Ironwork from Entrance Gates.

IVAR TENGBOM, ARCHITECT. (See page 151.)

MEETINGS

Friday, January 21.

Architectural Association. Mr. R. A. Duncan on "The Architectural Setting of English Life: The Mediæval Scene." 8.30 p.m.

Royal Institution. Sir Leonard Woolley on "Excavations in North Syria." 21, Albemarle-street, W.1. 9 p.m.

Monday, January 24.

Royal Institute of British Architects. President's Address to Students. Presentation of Medals and Prizes. 8.30 p.m.

Hammersmith L.C.C. School of Building and Arts and Crafts. Mr. C. G. Dobson on "Roofing Tiles." Lime Grove, W.12. 8 p.m.

Tuesday, January 25.

Housing Centre. Tuesday Lunches: Miss A. M. Lufton on "Information and Research Work of the Housing Centre." 1 p.m.

Institution of Civil Engineers. Mr. R. G. Knight on "The Subsidence of a Rockfill Dam and the Remedial Measures Employed at Eildon Reservoir, Australia." 6 p.m.

Wednesday, January 26.

National Federation of Building Trades Employers. Annual Dinner. Dorchester Hotel, W.1. 7.15 p.m.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on Spanish Renaissance: 1500-1900. 6 p.m.

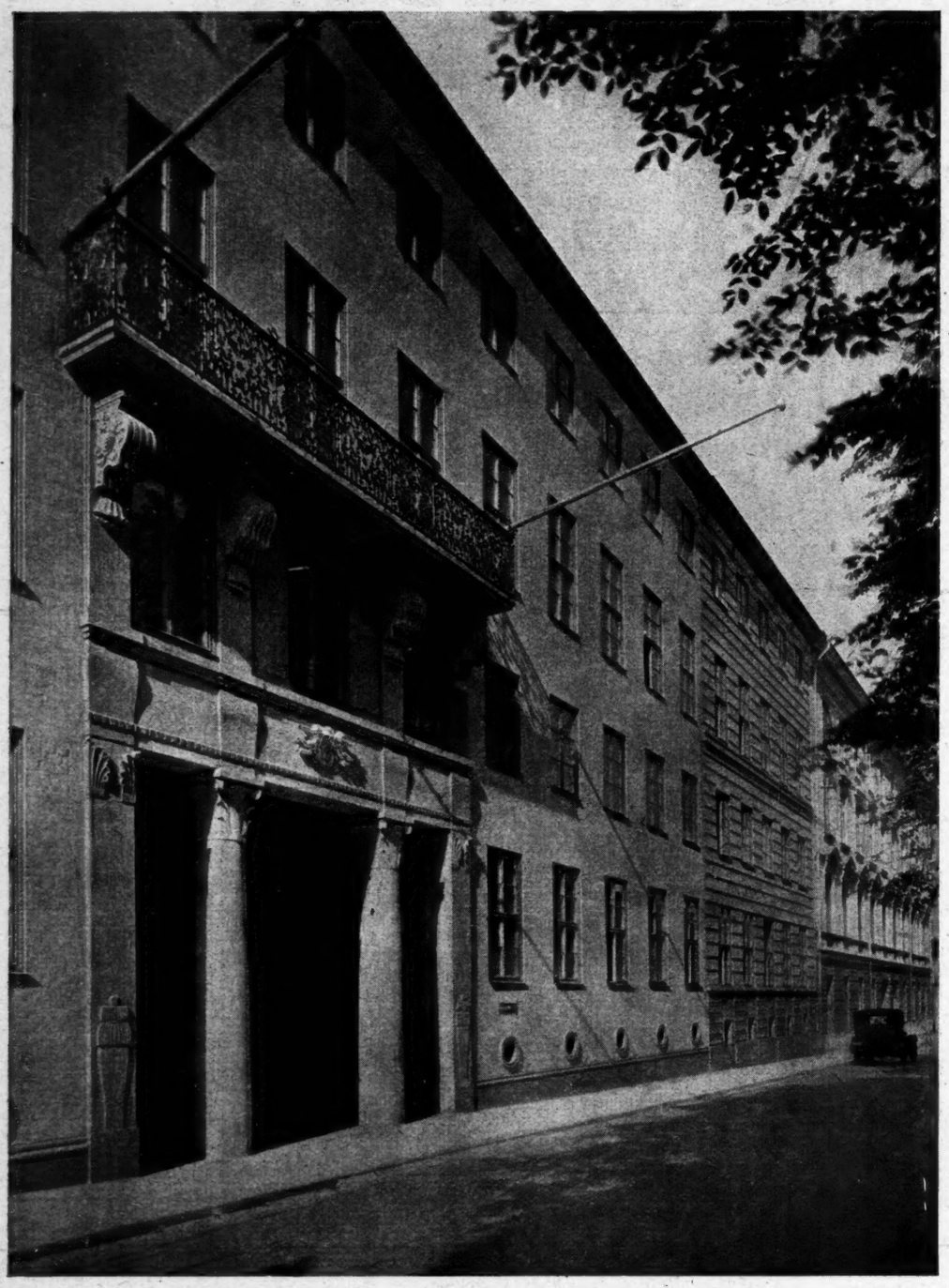
Liverpool Architectural Society. Paper by Mr. W. A. Henderson. 6 p.m.

Institution of Municipal and County Engineers (North-Western District Junior Section). Mr. W. E. Hayward on "Foundations." Liverpool. 7.30 p.m.

Institution of Civil Engineers (Newcastle-upon-Tyne and District Association). Mr. E. W. Gill on "The Construction of the Kincardine-on-Forth Bridge." Co-operative Society's Cafe, Stockton-on-Tees. 7 p.m.

Thursday, January 27.

Institution of Structural Engineers. Mr. A. Hiley on "Some Apparatus for Specialised Use on Sites of New Foundations." Institution of Civil Engineers, Great George-street, S.W.1. 6.30 p.m.



THE SWEDISH MATCH COMPANY BUILDING, STOCKHOLM.

This view is of the South front of this building, whose Architect, IVAR TENGBOM, has been nominated by the R.I.B.A. for the Royal Gold Medal. An appreciation of Mr. Tengbom, by Mr. F. R. Yerbury, Hon. A.R.I.B.A., is on page 151.

TOPICS OF THE DAY

G. B. S. AND CLASSIC ARCHITECTURE.

IN a foreword to the catalogue of the Mars Exhibition, Mr. Shaw disports himself in characteristic fashion at the expense of the Classic Architecture of this country. After studying what Mr. Shaw has to say, and making allowances for that deliberate over-statement which is at times the proper emphasis of the artist, we find that he has said nothing fresh about the problem of modernism, nor has he re-stated any previous thought in a fresh way. When he sets to the discredit of our eighteenth-century architecture that it provided no bathrooms, he is merely ranging himself with the pure functionalist. The conception of the dwelling-house as "A Machine for Living" may have some appropriateness to contemporary building, but is of doubtful applicability to generations dead and gone. "Living" in those days did not embrace the ideas of modern amenities, among which the daily bath may be numbered. It did, however, embrace a definite quality of dignity, often to the enrichment of social life, though sometimes descending to the absurdities of mere pretension. It is obvious, therefore, that the machine for living in those days would have been incomplete without some expression of this by no means valueless quality.

To many of us, the loss of this social dignity is, in an entirely unsnobbish sense, one of the chief defects of modern life; and many entertain a hope that the quality will be quickly recaptured and welded into the practical efficiency of the moment. Certainly, the advocates of "Fitness for Purpose" as the sole test for art values are becoming fewer and fewer, in the realisation that man's aspirations are not always a fit subject for trite definition.

We are no advocates of Revivals of Revivals in any shape or form, but we do feel that the dignity of Eighteenth and early Nineteenth-Century England deserves both our respect and our study if we are to develop a fuller and more satisfactory pattern for living. Mr. Shaw himself should find little to complain of in such a contention.

DEVELOPMENT AND TRANSPORT IN LONDON.

THE inter-relation between building development and passenger transport in the London area is once again brought into the arena of discussion by the publication of the annual report of the London and Home Counties Traffic Advisory Committee.* In this report are given details of the applications made by the local authorities of certain sectors of London for extension of tube facilities between the suburbs and the core of London, and also the reply of London Transport Board to the requests.

The information contained in that report is *prima facie* evidence for the setting of a limit to the extent to which London should be allowed to grow, and for planning within that limit development of industry and housing, not only with regard to amenity but, equally important, in relation to available transport.

The appalling conditions of overcrowding now current during the "peak" hours are symptomatic of a condition in which the benefits of centralisation (definable in its simplest form as grouping for communal convenience) have become more than outweighed by discomfort, waste of time and expenditure of money occasioned to those who live outside the central area.

We are not in favour of arbitrary decentralisation, even were it possible. There is more to be said—on the grounds both of expediency and feasibility—for setting an arbitrary limit to the growth of Greater London. The folly of permitting a state of affairs by which nearly one quarter of the population of Great Britain is settled within a circle of 20 miles radius of Charing Cross—a condition in which those who wish to travel from outskirts to the centre are severely incommoded; the transport companies' resources are severely taxed, often unremuneratively; and the available countryside is being remorselessly eaten up—should be clear. If such is accepted, the immediate aim must be to restrict the establishment of further factories within the London area, and the planning of such additional housing as is yet required for the needs of the Metropolis in conjunction with passenger transport available now or in the future. This latter suggestion is, in fact, made by the Committee.

There are, no doubt, difficulties in the way. They are not insuperable. What is the alternative? As we see it, either some degree of paralysis of passenger transport or the imposition of a crushing cost for additional tube construction which will fall either on the fare-paying public or on public funds.

The economics of this are clearly explained in the Report under discussion. London Transport state that with the cost of tube construction at £750,000 per mile, an average population of not less than 45,000 per mile of new line is required. A 12-mile railway (such as is asked for by North Surrey local authorities) would require an additional population of 540,000 before it could be regarded as financially sound! Small wonder, therefore, that the Board has decided to ignore the claim of the mere 120,000 additional persons estimated to have settled in North Surrey since 1931.

The Advisory Committee recommend to the Minister of Transport that "it would be in the interests of the people requiring houses in the suburbs that building development for their needs should be attracted, if not guided, into the areas where railway facilities are not overloaded, or where additional railway facilities are about to be provided." So long as developers labour under the belief that they can build anywhere within the Greater London boundaries and claim transport facilities as they call upon gas and water services, so long, in our opinion, will efforts at "attraction" be so much wasted time.

R.I.B.A. PRIZES.

THE opening of the deed of award in the R.I.B.A. prizes and studentships brings to a close, in one sense, the students' year. The competitions provided the provincial schools with fresh triumphs. Outstanding is the Edinburgh School, whose representatives have added the Grissell, the Measured Drawings, the Cates and the Neale prizes to the Rome Scholarship won by Mr. W. T. C. Walker earlier in the year. A great record, indeed, and one which is a personal triumph for one of the Edinburgh students, Mr. William Robertson, who has taken the Measured Drawings Medal, the Arthur Cates and the Grissell—a feat we believe to be unequalled in one and the same year. The Leeds School also has a fine record, the Owen Jones, the Soane and the Bossom going to it—the last two being meritoriously netted by the same student, Mr. John Needham. London's sole success was in the Tite, won by a student of the Regent-street Polytechnic.

We do not know whether the London Schools have lost enthusiasm for these competitions, or whether the success of the provincial schools is merely the swing of the pendulum. We hope that the first supposition is incorrect, for quite apart from the not inconsiderable monetary value of some of the prizes and the opportunities they offer for travel in this country and abroad, there is the positive value of working out and completing a programme in competition with the best student brains in the country.

* 12th Annual Report. H.M. Stationery Office. Price 9d. net.

NOTES AND NEWS

Design of Wandsworth Flats: Control Urged.

More effective control over the external appearance of buildings is urged by Wandsworth Town Planning Committee. In a report which came before the Borough Council on Tuesday it recommended that the attention of the L.C.C. be drawn to the "serious effect on local amenities caused by the erection of buildings of ugly appearance. In dealing with plans of new buildings submitted by the L.C.C. to the Borough Council for observations," the Committee continue, "we have, in the case of a number of blocks of flats, drawn the attention of the County Council to the severity of the proposed elevations. Notwithstanding our representations for amendments, blocks of flats have been erected in the borough with little or no attempt to incorporate any pleasing architectural features in their elevations. Their outward appearance contrasts so sharply with that of adjacent property as to spoil entirely the character of the affected area."

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The Stained Glass from Salisbury.

The ancient stained glass recovered at Salisbury, consisting of fragments only which the authorities there did not regard as of sufficient value to find a place for in the windows of the Cathedral, has since been accepted for insertion in the windows of Winchester Cathedral. An opportunity is now afforded of examining this glass, which is put up in the windows of the choir aisles. The glass panels, many in number, are of two shapes as now leaded up—diamond and oblong. At present they are placed only provisionally—the series of diamond-shaped panels in the windows of the south aisle, and the oblong in those of the north. We take it that this arrangement is to afford the opportunity of considering the merits of these collected fragments before giving them a permanent place in the windows.

We have to recognise the great care that is now being taken to prevent unsuitable additions being placed in our churches, but this care attaches mostly to work of contemporary manufacture. We think there is reason that equal care should be taken to avoid unsuitable additions of ancient and wholly moribund character. This description may be fairly applied to the ancient glass recovered from Salisbury. Why occupy these fine windows, at present plain glazed, with such questionable survivals? Surely they are better preserved for living art. It may be granted that the oblong panels still retain some recognisable merit; their interest, however, is more antiquarian than artistic. We think that consensus of opinion will confirm what we say. There is a false glamour attaching to mere age which is not necessarily a quality, and is in this case a perished one! It would be a pity if these fine windows of the choir aisles of Winchester Cathedral were surrendered to such glass, obstructive of the possibility of glass possessing real vision and beauty being some day included. Stained glass is not good because it is old, but because it is good, and we should not make a fetish of old glass which has perished.

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London Links With Dickens.

Two London links with Charles Dickens are likely to disappear in the near future. One is at North Southwark, where the L.C.C. has applied to the Ministry of Health for sanction to undertake an extensive clearance scheme. The novelist lived in Lant-street, nearly opposite St. George's Church, Borough High-street, in his boyhood days. A disused burial ground near St. George's Church, Borough High-street, identified with the one where Little Dorrit slept one night, is also to be compulsorily acquired for improvement purposes. The other link is the Arundel Hotel, overlooking the Victoria Embankment and the Thames, which has interesting historical associations, but is to be demolished and the site redeveloped. When the present building was erected in 1884, it took the place of an earlier hotel, appreciatively commented on by Charles Dickens, which probably dated from the early part of the eighteenth century. This is a small part of the site formerly occupied by Arundel House.

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Barrie's Birthplace: Renovation Proposed.

The birthplace of Sir James Barrie and the adjoining building in Kirriemuir are to be renovated by the Office of Works by arrangement with the National Trust for Scotland. We learn that it is intended to relay the slates on the roof, but that before this is done it will be necessary to strengthen the woodwork of the roof which has deteriorated. It is intended also to remove the existing frames in the windows and to replace the panes by smaller ones similar to those originally provided.

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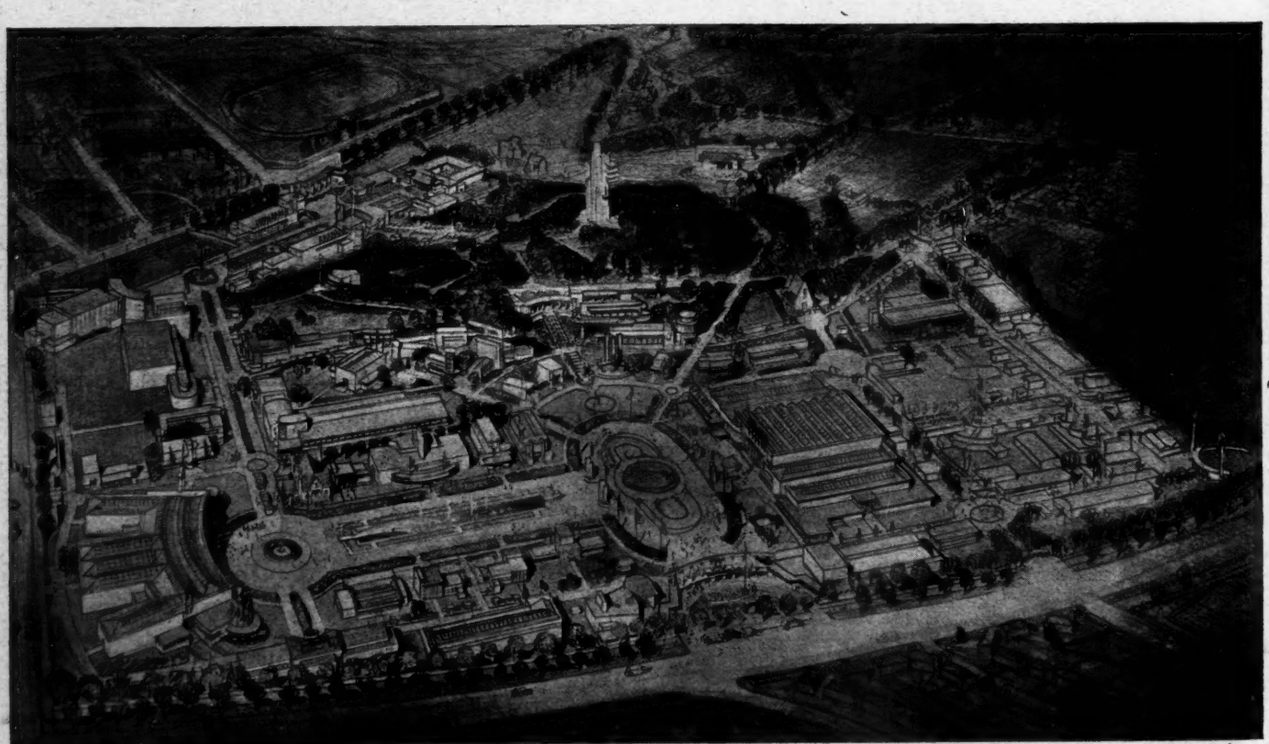
Scottish Housing Advisory Committee.

Mr. Walter Elliot, Secretary of State for Scotland, has appointed the following persons to fill vacancies in the membership of the Scottish Housing Advisory Committee: Miss Grace Drysdale, Edinburgh; Bailie William Elger, Glasgow; Bailie Rutherford Fortune, Edinburgh; Mr. G. P. Laidlaw, Paisley; Major John Stirling, of Fairburn; and Mr. William C. Davidson, Stirling.

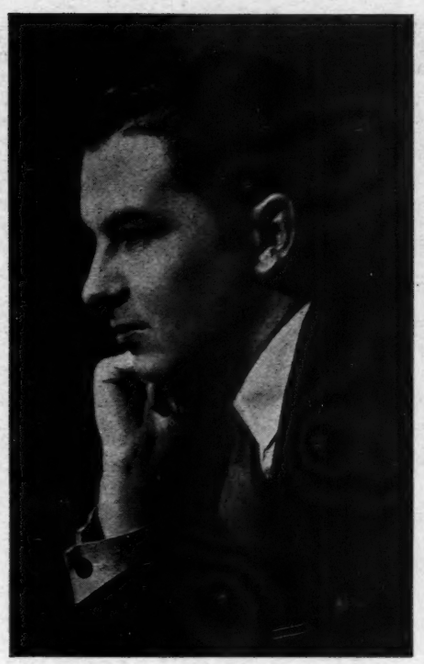
Miss Drysdale, Bailie Elger, Bailie Rutherford Fortune and Mr. Laidlaw were appointed as original members of the Committee in 1935, and on the completion of their first term of office have now been reappointed for a further term of three years. Major Stirling and Mr. Davidson are new members. The Committee was appointed under the Housing



Drawn by J. D. M. Harvey.

GENERAL VIEW OF EMPIRE EXHIBITION LAY-OUT, BELLAHOUSTON PARK, GLASGOW.
MR. THOMAS T. TAIT, F.R.I.B.A., SUPERVISING ARCHITECT.

MR. IAN F. WARWICK, Stud. R.I.B.A.
(WINNER OF TITE PRIZE AND CERTIFICATE).



MR. JOHN NEEDHAM, A.R.I.B.A.
(WINNER OF SOANE MEDALLION AND BOSSOM STUDENTSHIP)

These three designs, together with the winning design in the Grissell Prize, and Mr. Fernand Billerey's criticism of Designs, are given on pages 152-156.

(Scotland) Act, 1935, for the purpose, among other things, of advising the Department of Health for Scotland on matters arising in connection with the execution of the Housing (Scotland) Acts. The Committee have at present under consideration remits dealing with the management of local authorities' houses and the rehousing of aged persons from insanitary or overcrowded houses.

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R.I.B.A. News.

GENERAL MEETING.—On Monday next, January 24, at 8.30 p.m., the President's Address to Students will be given, and the presentation made of prizes and studentships. The prize drawings will be on exhibition until January 31, 10 a.m. to 8 p.m., Saturdays 5 p.m.

HEALTH, SPORT AND FITNESS EXHIBITION.—Lord Aberdare, Chairman of the National Fitness Council, is to open this Exhibition at the R.I.B.A. on Wednesday, March 2, at 2.30 p.m. The exhibition is now well advanced, and promises to be one of the best that the R.I.B.A. Exhibition Committee have yet produced.

UNIVERSITY EXTENSION LECTURES.—The University of London are continuing their Extension Lectures at the R.I.B.A. during the Spring. The lecturer is Mr. E. R. Jarrett, A.R.I.B.A., and the subject "The Ideas Behind Good Building." There are to be ten lectures, every Thursday evening at 6.30 p.m., beginning on January 27. They will be delivered in the Henry Jarvis Hall. Mr. Jarrett's first lecture will be a survey of his subject, the next three a study of the historic background; the fifth will cover the nineteenth century; the last five will be entitled respectively "Modern Problems," "Rural Requirements," "The Town," "The Needs of Home Life," "Looking to the Future." The lectures are intended for the general public, and architects are asked to bring them to the notice of their friends. The fee for the course is 10s. (teachers 6s.), single lectures being 1s. 6d.

ST. ANDREW'S CATHEDRAL, SYDNEY. EXHIBITION.—The 30 designs submitted in the recent competition for St. Andrew's Cathedral, Sydney, are to be on view at the R.I.B.A. from Wednesday, June 1, to Wednesday, June 15, inclusive. They are at present on exhibition in Sydney. The design by Mr. Roger A. P. Pinckney, F.R.I.B.A., and Mr. A. F. E. Gott, L.R.I.B.A., was placed first.

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The New Model Building Bye-laws.

THE Royal Sanitary Institute has arranged for a discussion on "The Ministry of Health New Model Building Bye-laws" to take place at 90, Buckingham Palace-road, S.W.1, on Tuesday, February 8, at 5.30 p.m. The opening papers will be read by Mr. E. H. Ford, M.Inst.C.E., City Engineer and Surveyor, Coventry, who will deal with the subject from the engineer's point of view, and by Mr. W. N. David, Sanitary Inspector, Hoddesdon U.D.C., who will deal with the sanitary inspector's aspect of the subject. The chair will be occupied by Mr. W. T. Creswell, K.C., Hon.A.R.I.B.A. (Vice-president).

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An Architect's Estate.

MR. WILLIAM EDWARD RILEY, F.R.I.B.A., M.I.C.E., architect to the L.C.C. and Superintending Architect of Metropolitan Buildings 1899-1919, who died on November 9 last, aged 85 years, left estate of the gross value of £1,738 2s., with net personalty £901 2s.

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Anti-Litter Ticket Punch: A London Transport Invention.

LONDON TRANSPORT are now employing an anti-litter ticket punch on the Underground railways. Instead of falling to the ground, ticket chippings are caught in a magazine which may be emptied into a litter basket. This is part of London Transport's campaign to encourage the more orderly disposal of litter on their properties. In a normal week 44 tons of litter are removed from the trains and 20 tons from the stations.

The Hammersmith Council has decided to erect baskets on all London Transport's stopping-posts in the borough. At the Council's request, notices asking people to use the baskets will be posted in London Transport road vehicles.

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London Transport Projects for 1938.

LONDON TRANSPORT reports that during 1938 it is expected that the Board and the Main Line Railways, in conjunction, will spend £12,000,000 under the £40,000,000 programme.

The work scheduled includes the boring of 10 miles of tube, the commencement of work on seven new stations, and the reconstruction of 15 stations. Among the stations concerned are Edgware, East Finchley, Church End, Uxbridge, Harrow, Baker-street, Neasden and Finchley-road. The rebuilding and enlargement of Chiswick Bus Works, the Acton Railway Works, and the Neasden Railway Depot will be completed. A new training school for railway men will be built.

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London Transport's New Chief Engineer.

AFTER 37 years with the Underground Railways, Mr. Arthur Reginald Cooper, Chief Engineer of London Transport, retired from the service on December 31. He took an active part in the extension and consolidation of the Underground system, and in the planning and execution of the £40,000,000 programme now under way, and altogether had a hand in spending some £100,000,000 to improve the passenger transport facilities in London.

MR. VERNON ALEC MURRAY ROBERTSON has been appointed in succession to Mr. Cooper.

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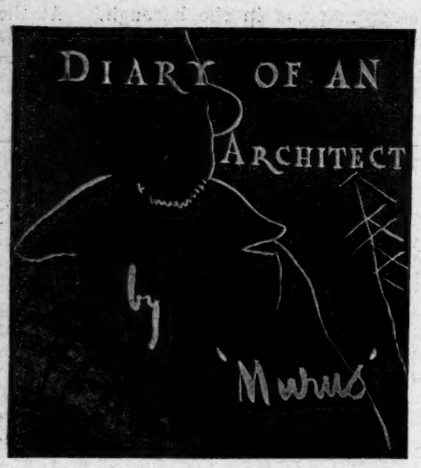
Professional Announcement.

An announcement appeared in our issue for January 7 which referred to the impending retirement of Mr. William Campbell Jones. We are informed that Mr. William Campbell Jones is not retiring, but is continuing to practise at Skinners Hall, 9, Dowgate-hill, Cannon-street, London, E.C.4, in partnership with his two sons.

MR. W. A. B. ROBERTSON, A.R.I.B.A.,

Who has gained the R.I.B.A. Silver Medal for Measured Drawings, the Grissell Gold Medal and the Arthur Cates Prize. Mr. Robertson's designs in the Grissell are illustrated on page 155.



14: I: 38. Yesterday was the private view of an Exhibition which has been awaited with interest by all contemporary architects—the MARS (or Modern Architectural Research) GROUP at the Burlington Galleries. I imagine the Press will find certain news value in this propaganda, which sets out to represent the "avant garde" of the profession.

Because it does presume to attain this high standard is a good enough reason for myself, or, for that matter, any other writer, reviewing it without fear or prejudice; and if this group aim at such high standards, then any criticism which I personally would apply to it is based on the success or failure of the Exhibition, according to those standards.

About the Exhibition as a whole one cannot say it is good or it is bad—the statements are too broad; and such singular criticism could not apply collectively. Taking all the good points first—there is no question of the sincerity of the group to achieve what they consider to be right, in so far as contemporary architecture is concerned; and sincerity is a quality which it would be stupid to ignore. Beyond this sincerity there is no doubt that they are proceeding in the right direction; that is to say, the form of architecture about which they are enthusiastic is without the slightest possible doubt the logical skeleton on which future architecture will be based. These two qualities, to a great extent, cancel out a great number of minor criticisms. Further commendable points lie in the efforts which have gone into making possible this show; and the voluntary work on the part of certain members of the group speaks volumes for their enthusiasm.

The Mars Group consists of 71 members, and the names of most of the so-called "modern" architects are included in this list (such men as LUBETKIN, CHERMAYEFF, FRY, GIBBERD, etc.), together with a miscellaneous collection of non-architectural members, such as OVE ARUP, the engineer; CYRIL SWEETT, the quantity surveyor; P. MORTON SHAND, the writer, and MOHOLY-NAGY, the designer. The two most impressive names, GROPIUS and MOHOLY-NAGY, reside in America; and the finest designers in the group are people whose origin is non-British.

The average age signifies a group of young men and women; so that the Mars Group, taken collectively, does not by any means represent the normal standard of advanced English architecture, but rather a self-contained group of intellectuals who presume to represent a prophetic style of universal architecture.

The Exhibition itself has been arranged by certain members of the Group, and they have been given sections or parts of the plan to design in their own way. I have promised (because it is officially a group show) not to name authors of works; but the following persons are responsible for the greater part of the design — WELLS COATES, CLIVE ENTWHISTLE, FREDERICK GIBBERD, ERNO GOLDFINGER, CHRISTOPHER NICHOLSON, and WILLIAM TATTON BROWN. Therefore the spirit of the Exhibition is, to a large extent, based on the individual conception of these people, although there may be others of whom I am not aware. Incidentally, the finance of the Exhibition has in part been subscribed by various commercial concerns.

My impression of the Exhibition as such consists primarily of confusion. There is a very high standard of display and taste running throughout the whole; but the result of a number of men expressing their ego in various corners of a room is one of indigestible content. The trap which they appear to have fallen into is epitomised best by the unnecessary complications which always result from an architect attempting to design a simple exhibition stand. What *he* sees in it is infinitely more lucid than the impression a visitor obtains; and there is no doubt that this display is too complicated.

In the second place, the organisation has gone in for far too much verbosity; so that to grasp what certain displays mean it is necessary to stop and read an account of an unusually intellectual description—in other words, the result is more like a book than an exhibition; and this aspect does tend to increase the confusion in one's mind. The third criticism lies in the fact of a consistent effort having been made to produce sensational shapes. The entrance is particularly strained in this respect, and the substitution of vignetted shapes for rectangles, and the wholesale use of what one might describe as "free shapes," not only tends to confuse what ought to be a simple issue but causes the public to believe that something on a par with surrealism is being attempted. That in itself would not matter so much if it were not for the fact that architecture cannot exist without the support of the lay person, and therefore is utterly unlike the individual work of any person working in the minor arts. I have looked this morning to ascertain the reaction of the newspaper critics to this affair, but so far *The Times* and the *Daily Telegraph* have not published anything. WILLIAM HICKEY, in the *Express*, makes the following remarks:—

"Almost all the good modern architects I know of seem to belong to *Mars*; and when I say modern I don't mean Modernistic. Few of them have designed super cinemas.

"Few, either, have designed cathedrals. Giant white-elephant cathedrals might get built quicker if they did, cost less; what's preached in them might seem a contemporary message, instead of an archaic quaintness.

"They are modern, 'functional' and all that, without being too severe: and I was glad to see a specimen living-room labelled 'Not a machine . . . a harbour.'"

Apropos the analogy of the harbour, it seems a little inappropriate in view of the fact that the harbour is intended to accommodate a boat, which is equivalent on land to the house. My feeling about the exhibition as a whole may be summarised as follows:—

It is sincere and on the right lines; it is promoted by a group of ambitious people, who are not always the most profound or most sensitive. The analysis of the problem is thorough and good; but the finished products show a lack of quality which is innate in all the best styles of architecture; in other words, the analysis is right; superimposed on this analysis a quality peculiar to the style must be evolved.

Final conclusion — the catalogue is probably more enlightening than the Exhibition.

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15: I: 38. The curious thing about lay people's reaction to the Mars Exhibition lies in the fact of their being indefinite as to their likes or dislikes. About it they cannot say "How marvellous!" "How ridiculous!" "How beyond their understanding!" and so on. They can and do create funny stories about it; but in some way disguise their real opinion—viz., BARNEY SEALE'S "Why don't they do their sculpture in invisible glass, instead of ordinary transparent glass?"

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17: I: 38. Forgive this spate of exhibitions—a comparison may be drawn between the Exhibition of Timber at the Science Museum and the show I have discussed at length in the preceding paragraphs. The Science Museum — quiet background of very stable Office of Works architecture; and the absolute treasure store of machines which one passes by on the way to the ground-floor room, where the Timber Research show is. The exhibition is of a technical nature—*i.e.*, sections of timber suffering from various diseases—analysis of the modern circular saw—derivatives from timber such as fabrics, newspapers, etc.—and full-size sections of timber-framed buildings.

It is simple and well-arranged; and although it does not possess the intelligence of the Mars Group by a long way, I infinitely prefer its setting. The taste, architecturally, which shows itself in the models of timber buildings and suggestions for a few designs, is extremely disappointing in its crudeness and reliance on traditional methods. . . . It is a curious thing (if the Timber Development Association have had any dealings with the Exhibition) that this should be the case; because I seem to remember JOHN GLOAG on the publicity side and TATTON BROWN as the winner of a competition for a timber house. I also seem to remember this house being diluted enormously in its somewhat purist conception during the process of building at Olympia; and it would seem that a fine opportunity is being lost by smothering timber in its relation to contemporary architecture.

In fact, with the reaction against rendered surfaces which is going on, there seems to be great scope for the brick and timber companies to organise their finishes so that these materials may be suspended from a framed building in a logical way; and it is Tatton Brown, I believe, who has put forward the suggestion for a two-foot square brick of cellular construction that would make a satisfactory skin for a temporary building.

Mars

The Regal Cinema, Kennington.

We regret that in our description of the Regal Cinema, Kennington, illustrated in our issue for January 7, the names of the quantity surveyors were incorrectly given. The firm concerned were Messrs. Booth and Dickie, of 3-6, Rupert-street, Coventry-street, W.1.

IVAR TENGBOM

AN APPRECIATION OF THE ROYAL GOLD MEDALLIST

By F. R. YERBURY, Hon. A.R.I.B.A.

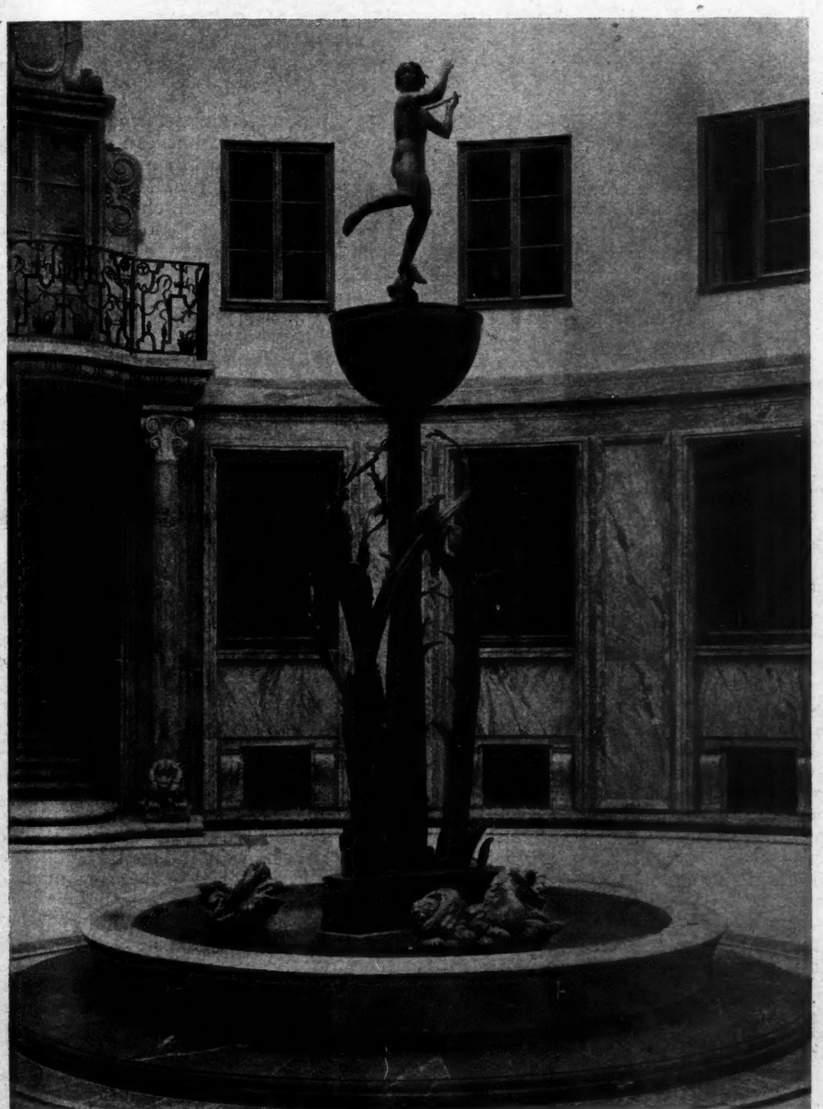
IVAR TENGBOM is the second Swedish architect to be honoured by the award of the English Royal Gold Medal for Architecture. The other recipient, it will be remembered, was Professor Ragnar Ostberg.

Tengbom represents a very definite phase of twentieth-century Swedish architecture, and unquestionably has had very far-reaching influence. He is one of the most outstanding figures in the architectural revival in Sweden, for which Professor Clason was very largely responsible. Tengbom has never been swayed very much by passing fashions. He can neither be called a fanatical modernist nor can he, by any means, be accused of being wholly traditional. His work is always extremely personal, and is always redolent of that especial charm which is associated with Swedish buildings and decorative arts to-day. His Hogalids Church, which, with its twin towers, stands high up on a rock overlooking Lake Malaren, may be regarded by many as his most successful building, especially having regard to its simple yet intensely religious interior.

His Concert House, which is perhaps more spectacular, again gives evidence of his sensitive appreciation of materials and decoration. Here, as in many of his other buildings, he has had the good fortune of being able to make great use of the sculptor Carl Milles. One of his largest works is the palatial and luxurious office for the Swedish Match Co., where he was able to call upon many of the leading decorators, painters and sculptors to contribute. At the moment Tengbom is in Ankara with Howard Robertson and W. M. Dudok, assessing a competition; a very interesting trio, in which unquestionably Tengbom will have his full say.

There was a very good story of Tengbom as chairman of one of the Committees set up from the International Jury assessing the designs sent in for the competition for the League of Nations building. This committee was given the job of making a preliminary selection. One of the members of the Committee, whose name perhaps had better not be mentioned, took strong exception to some of the Committee's selections, and complained that if Tengbom did not change his mind on some of them he would be compelled to resign from the Committee. Tengbom replied that it was much easier for this particular person to resign from the Committee than it was for him to change his mind.

Although a man of strong opinions and character, he has a most charming and attractive personality and, apart from this, is the father of the very popular Princess Bismarck, who spent so much time in London while her husband was attached to the German Embassy.



THE SWEDISH MATCH COMPANY BUILDING, STOCKHOLM : The Diana Fountain.
IVAR TENGBOM, ARCHITECT. CARL MILLES, SCULPTOR.

COMPETITION NEWS

Senior School, Keighley.

Mr. Harold A. Dod, M.A., F.R.I.B.A., the assessor in the competition for a council senior school on the Guard House site, for Keighley Education Committee, has made the following awards:—

1st (150 gns.): Messrs. Frederick Evans, F.I.A.A., and F. Hamer Crossley, A.R.I.B.A., 51, North John-street, Liverpool.

2nd (100 gns.): Messrs. R. S. Dixon and N. D. Quick, FF.R.I.B.A., 8, Quarry-street, Guildford, Surrey.

3rd (50 gns.): Messrs. Marshall and Tweedy, FF.R.I.B.A., 96, New Cavendish-street, London, W.1.

All three designs, together with a critique, are given in this issue. There were 121 entries.

Newcastle-upon-Tyne Civic Buildings.

Mr. Verner O. Rees, F.R.I.B.A., has been appointed assessor in the competition for the design of Newcastle's £435,000 new civic buildings. Mr. Rees's appointment was made by the Municipal Buildings Committee on January 7, when it was decided to advertise within the next month, inviting architects all over the country to submit designs.

CORRESPONDENCE.

Business and Golf.

SIR,—During March, 1930, you opened your correspondence columns to a discussion on "Architects' Representatives." In a letter of mine, which you were kind enough to publish, I wrote:—

". . . How, then, do we, (architects' representatives) get in touch with these Athenic supermen—via the golf clubs . . ?"

The following advertisement was inserted in a national newspaper last week:—

"Gentleman having connection amongst architects, councils and builders. . . . One having good golf handicap preferred. . . ."

It would appear that my would-be sarcasm has come home to roost!

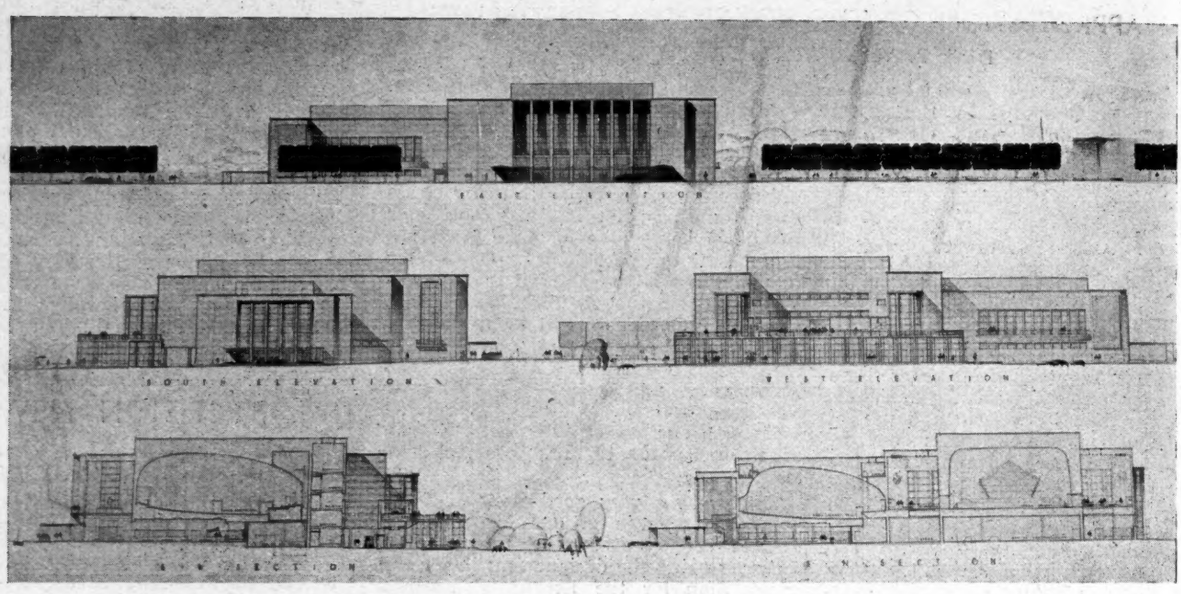
ARCHSREP.

Builders' Working Hours.

SIR,—Why do builders cease work at 5 p.m. in the summertime? Why not a staff on half-time, five days a week, or better still, six? There are plenty of artisans and labourers past the full-time stage, but not quite invalids. They would probably jump at the chance, in nine cases out of ten, but as things are they can do little or nothing. It would not be a bad move for the builders to keep their works going twelve hours a day, instead of eight.

O. A. P.

R.I.B.A. PRIZES AND STUDENTSHIPS, 1937



ELEVATIONS AND SECTIONS.

A MUSICAL CENTRE IN A PUBLIC PARK. AWARDED THE SOANE MEDALLION, 1937.

BY MR. JOHN NEEDHAM, Dip. Arch. (Leeds), A.R.I.B.A.

THE deed of award in the R.I.B.A. prizes and studentships, 1937, was opened at the meeting of the R.I.B.A. on Monday, January 10. The prize list was published in our last issue. The review of works submitted was given by Mr. Fernand Billerey, from whose remarks we take the following extracts:—

The most valuable criticism of all to-night (commenced Mr. Billerey) will be your own criticism of your own work, now that you are able to compare it with that of the other competitors. . . . Whatever I say should promote and encourage the comparison of your own work with that of others, which I invite you to undertake most carefully. One general remark about the drawings submitted has been made by one of the juries, namely, that the presentation and draughtsmanship is better this year than ever. The great majority are good, many are very good, and several are exquisite and very clever pieces of draughtsmanship. But beware of the man who starts by praising you! Another jury considered whether an award should be given at all, the designs not being of a sufficiently high standard. This is an unsatisfactory state of affairs. Good presentation of bad designs will not do; it would be better the other way about.

Bad design means an ill-considered sketch design. It is not enough to make a sketch design just cover the ground of the subject and to think that the frills will later on make it "look pretty." The quality of a design resides in the design itself, and no amount of frills will make a good design out of a bad one. The quality must be such that it is not only a scrap of paper to which you will honestly stick afterwards; in your own mind it must be *the* design, the one which will win the prize for you. It must be direct, straightforward, and so clear that your idea can be read at a glance when you put your sketch up on the end of the longest room you can find. Look at it from the big end of a pair of field-glasses!

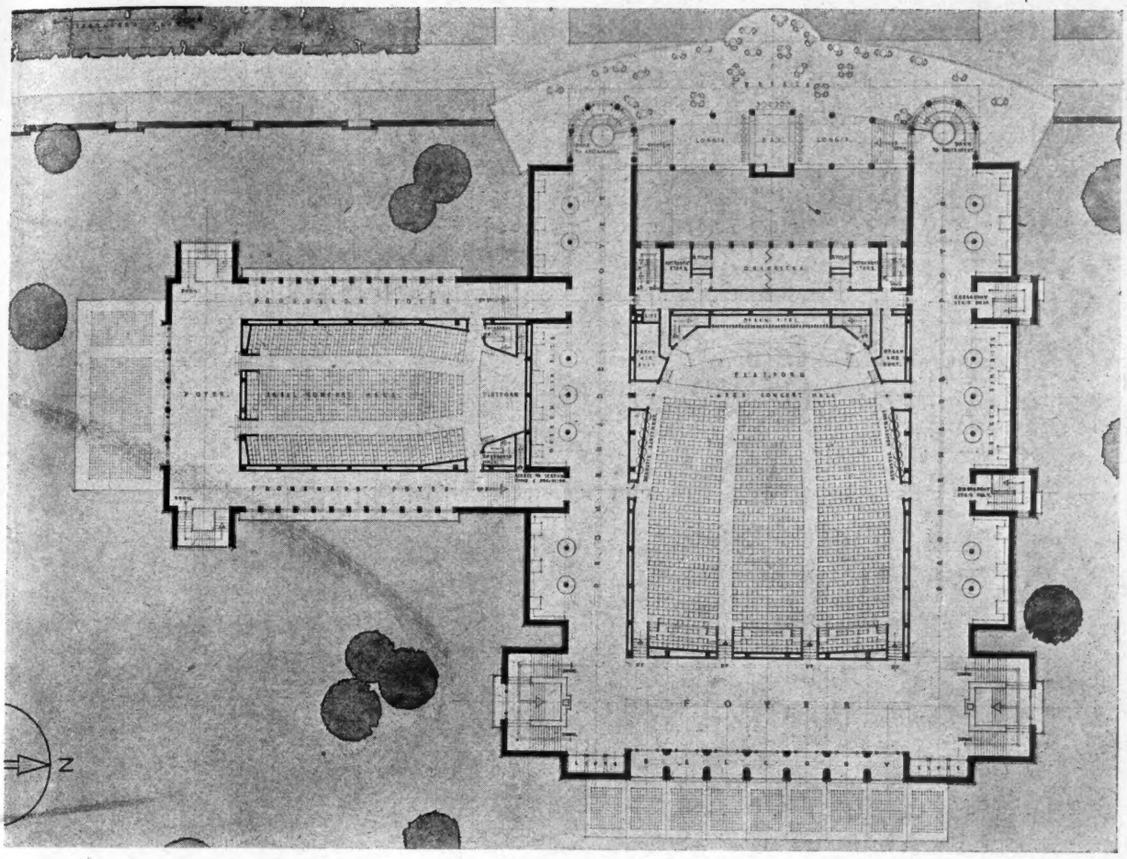
Review first of all the possible alternatives; eliminate most of them; select a few; check scale and dimensions; and choose the one which translates best your ideas of the subject. Prepare for the *en loge* day as a boxer trains for a boxing contest — moderate exercise, moderate food and smoking, plenty of sleep. Be ready to get to grips with the subject in a perfectly fit condition and produce a winner.

THE TITE PRIZE.—The Tite Prize for the study of Italian architecture is offered for competition to probationers or students of equivalent standard. The subject proposed is a library and formal garden in Northern Italy. The plans will show the salon of a villa, the windows of which look west on a terrace. At the other end of the terrace, a group of library buildings. Above the terrace, north of it, a wooded hillside; below it, to the south. gardens and a lake.

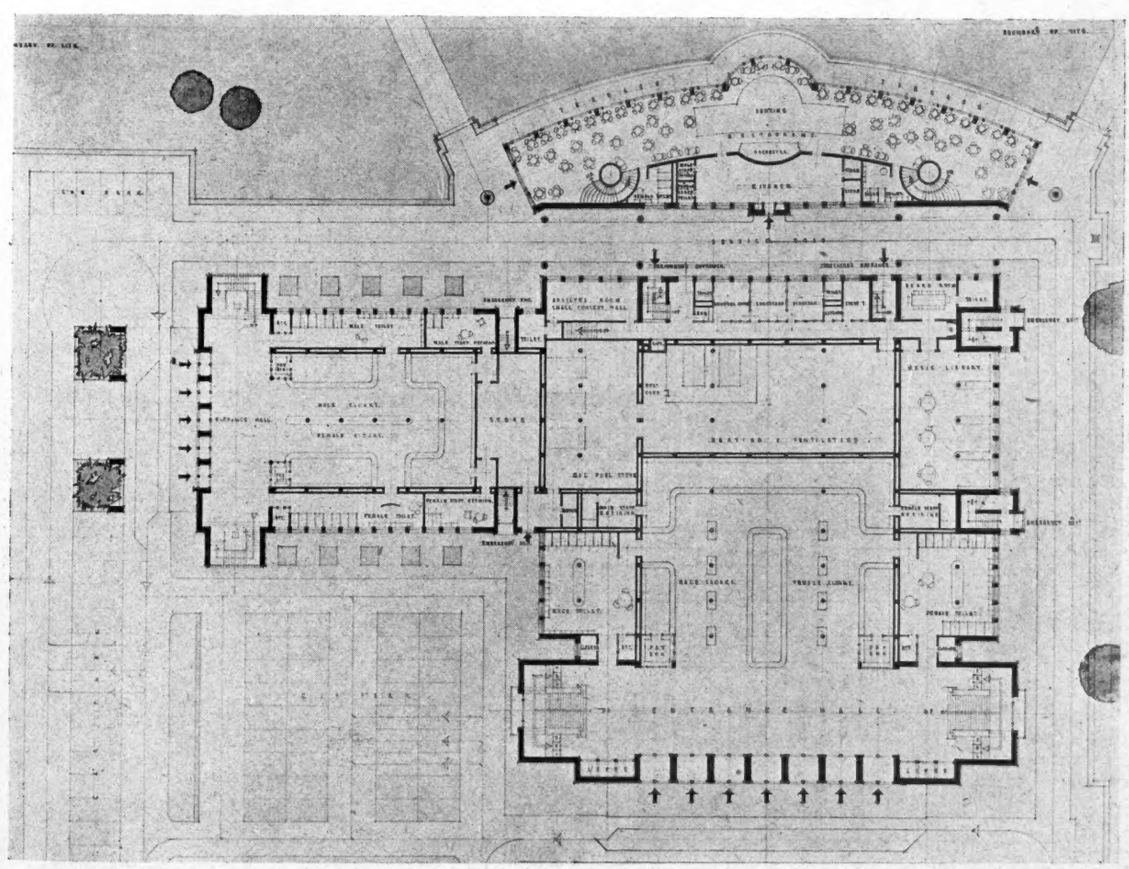
The motto of the winner [Mr. Ian Warwick] is "If," and his design is a typical illustration of the importance of a straightforward and simple layout; that quality and that alone has won him the prize—just a terrace of good proportions between the principal salon of the villa and the library buildings which face it, as they should do, and below the library, on its secondary cross axis, flights of steps leading to the lake. It is direct, simple, satisfactory at first glance. It has the essential quality of a good design. The presentation is good—very good, in fact—but no better than several others. On the other hand, there are defects even in the design. The plan of the portion of villa shown is poor. The salon, which is too wide, introduces a scale in comparison with which the library looks small and insignificant. The terrace seems poverty-stricken in spite of its good proportions, and the author, in his travels through Italy, will soon find that grass lawns are not an Italian feature. The little pond in the centre looks more like a bird bath, and the author should remember the principle that water in a formal garden can never be too big, but can easily be too small. The elevations are not good, and a perspective sketch calls attention to unsatisfactory details which might otherwise have escaped notice. As to the large-scale details, for the sake of the author it seemed better not to illustrate them.

THE SOANE MEDALLION.—The Soane Medallion is offered for competition to students who have completed their studies. It is primarily a competition in design. The subject was a music centre in a public park, the main features being a large concert hall, a small concert hall, a restaurant, and also and secondarily a small museum of musical instruments, administrative offices, etc. The site is alongside a road which passes through the park, and its ground slopes gently in the opposite direction, offering views of a typical English park and distant hills. The winner is "Ebor," [Mr. John Needham], and his design had the good feature of being a compromise between traditionalistic planning and modernistic treatment of architecture. The plan is good and straightforward, and is well balanced in spite of the fact that the small concert room is attached to the side of the large one at a point which is neither the centre nor the end, and could be so at almost any level without any obvious reason. The requirements of the subject are, however, well satisfied. Circulations are good and cloakroom accommodation generous, due to the fact that both concert rooms are placed at first-floor level, thus leaving ample space underneath. The restaurant is well-positioned, as it should be, towards the park and for views of the countryside, although the covered approach to the kitchen services is a little too obvious on that important side. The elevations are straightforward and decidedly modern, and the whole design shows good presentation without any fuss or extraneous detail.

THE ALFRED BOSSOM STUDENTSHIP.—This was founded for the encouragement



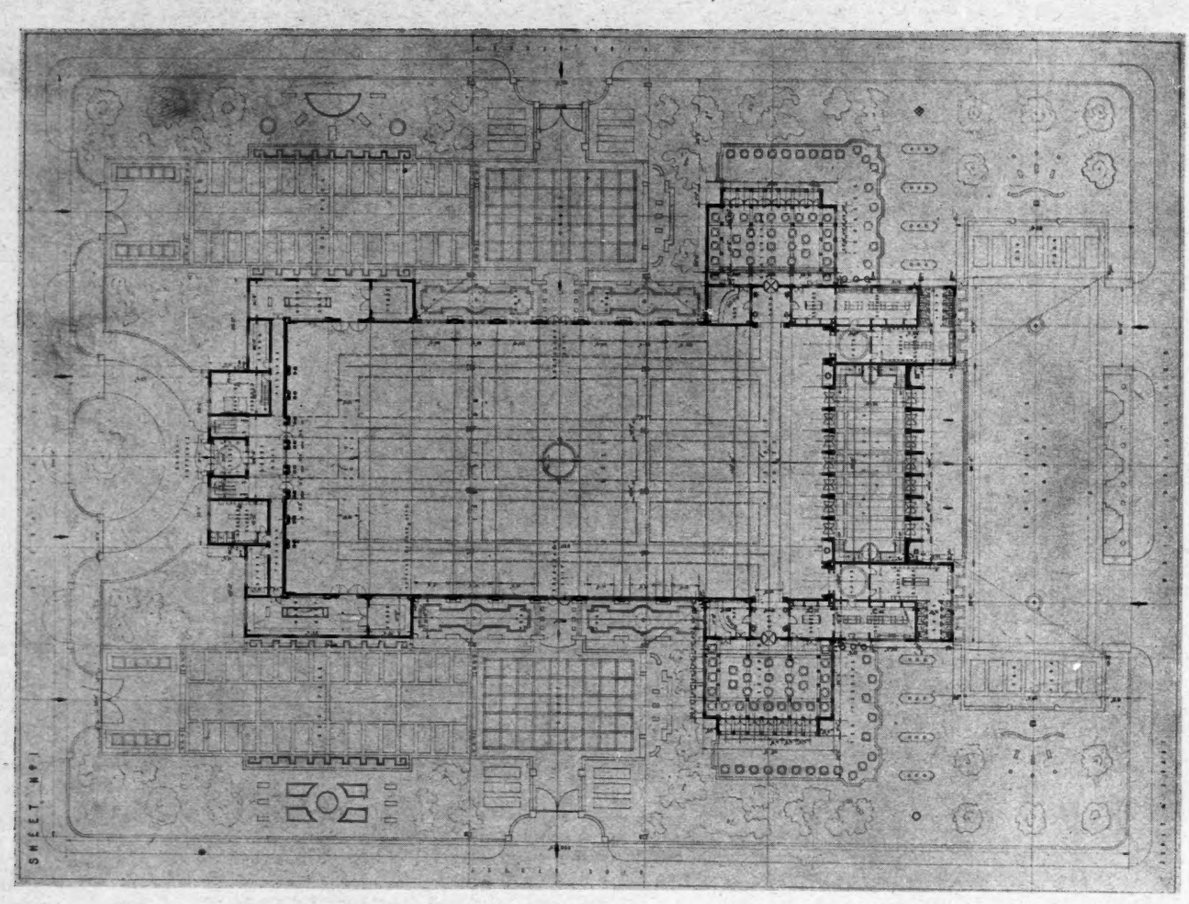
FIRST-FLOOR PLAN.



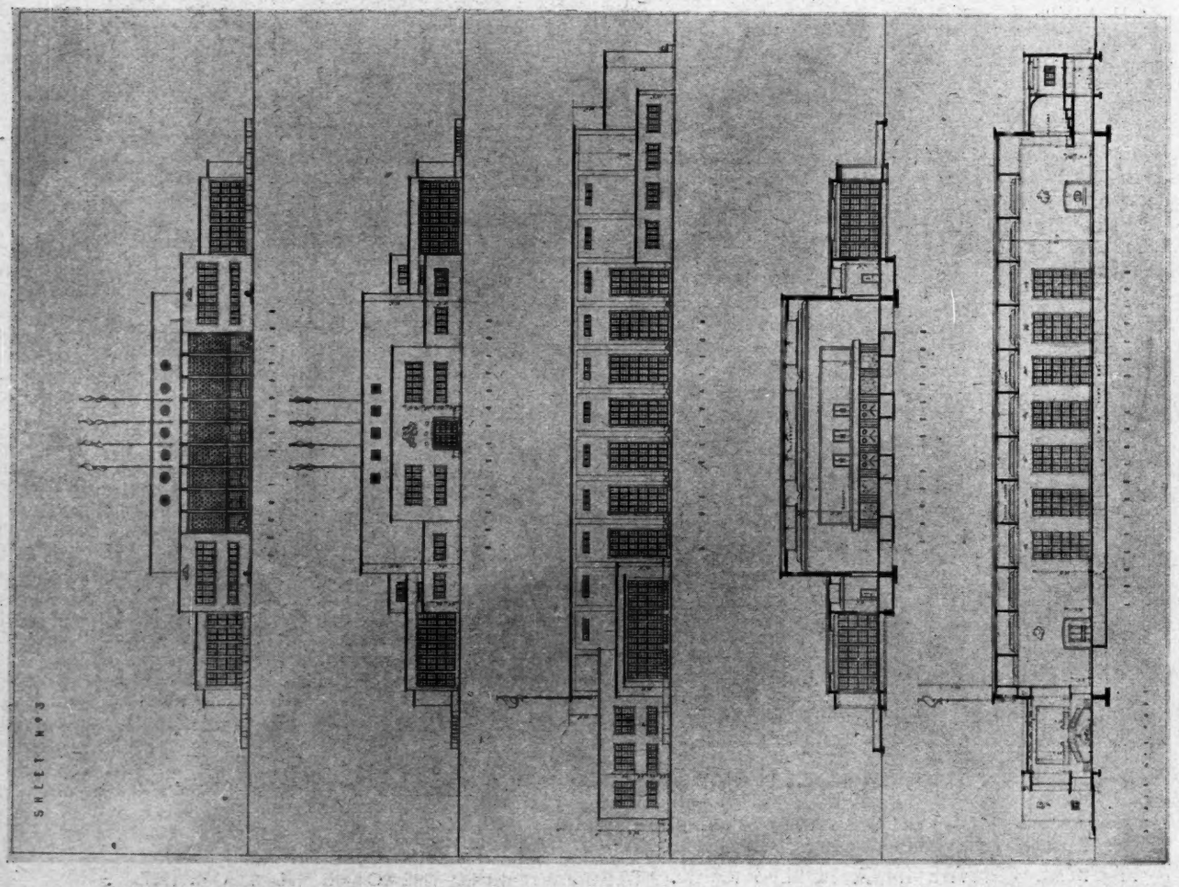
GROUND-FLOOR PLAN.

A MUSICAL CENTRE IN A PUBLIC PARK. DESIGN AWARDED THE SOANE MEDALLION, 1937.

BY MR. JOHN NEEDHAM, Dip. Arch. (Leeds), A.R.I.B.A.



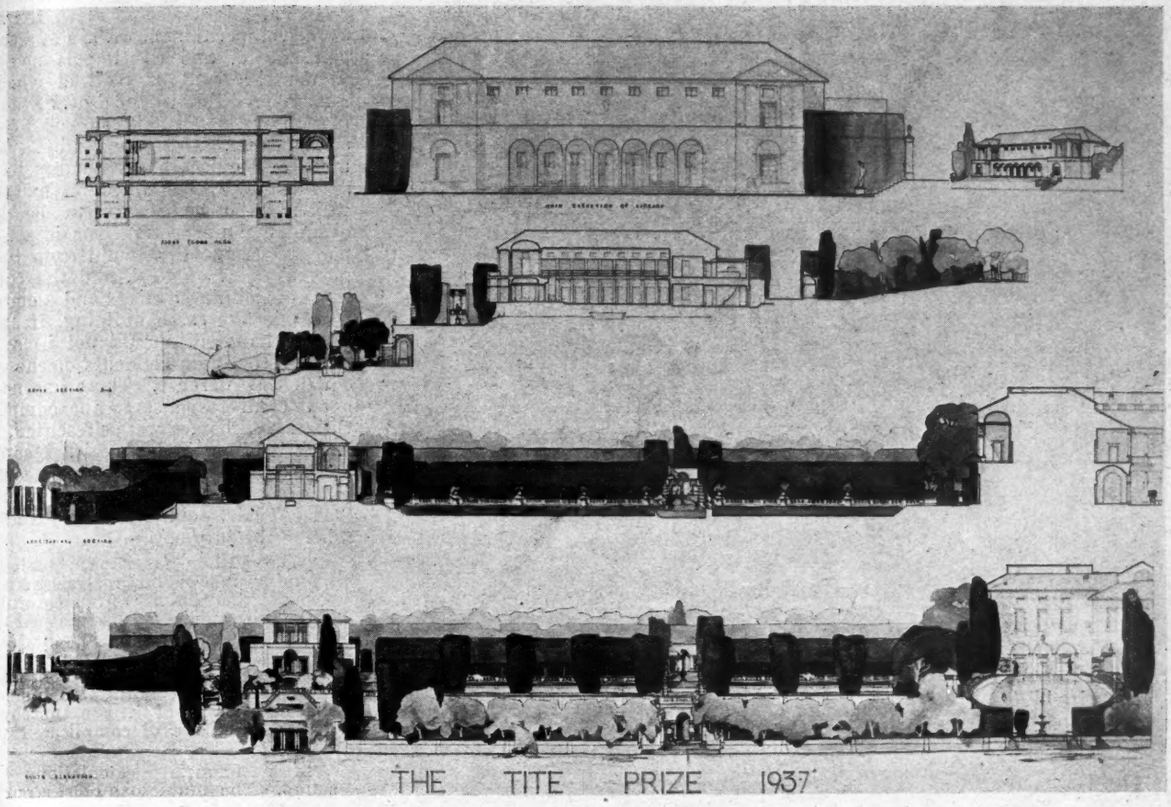
GROUND-FLOOR PLAN.



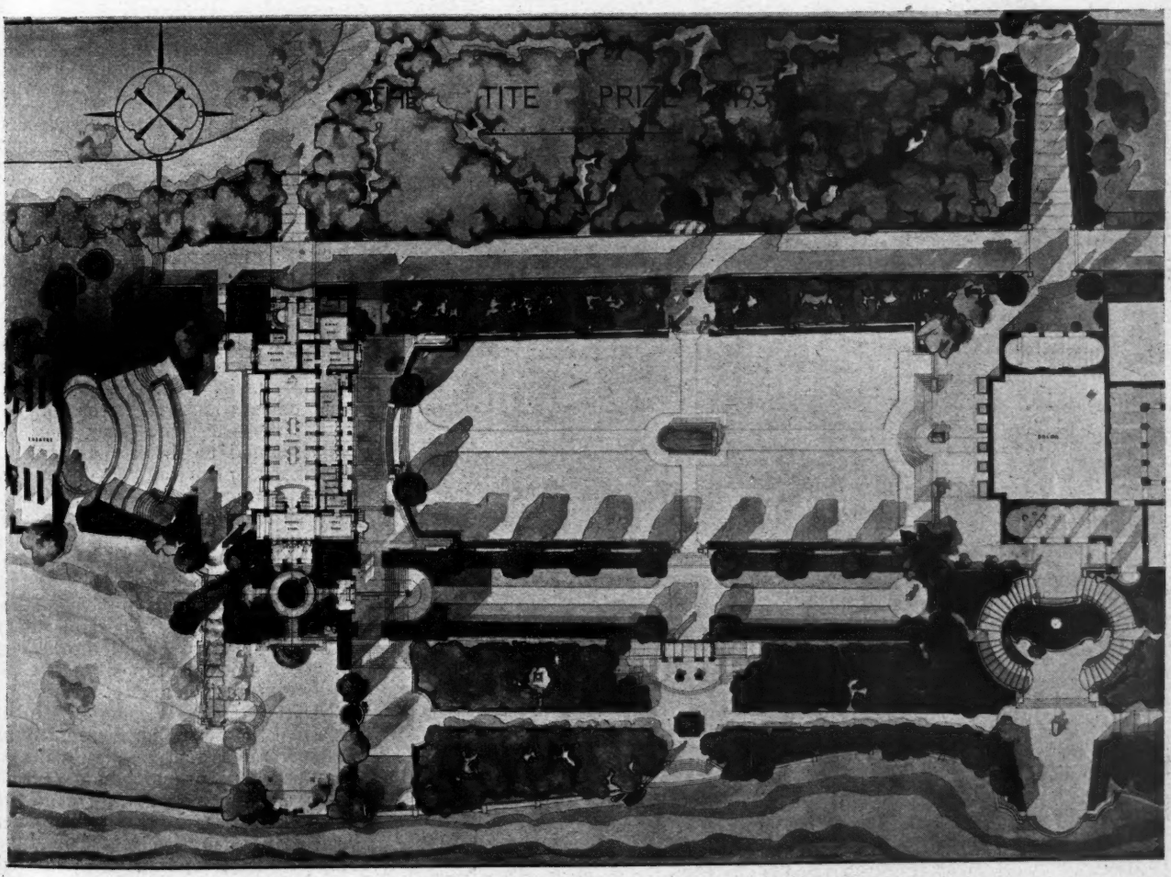
ELEVATIONS AND SECTIONS.

AN EXHIBITION HALL. DESIGN AWARDED THE GRISSELL GOLD MEDAL, 1937.

BY MR. W. A. B. ROBERTSON, A.R.I.B.A.



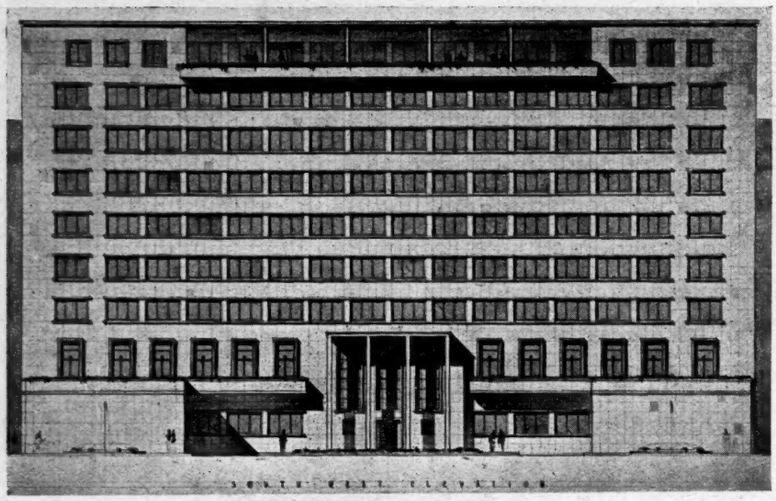
FIRST-FLOOR PLAN, ELEVATIONS AND SECTIONS.



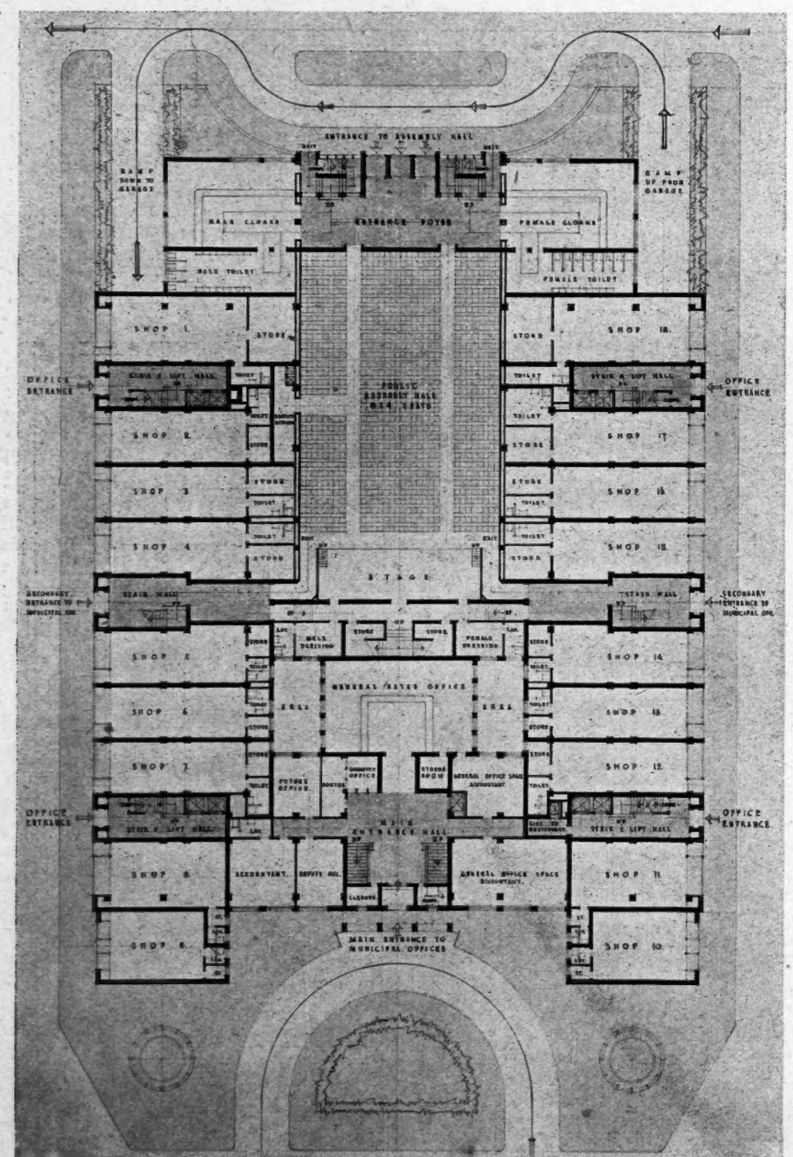
GROUND-FLOOR PLAN AND LAY-OUT.

LIBRARY AND FORMAL GARDEN IN NORTHERN ITALY. DESIGN AWARDED THE TITE PRIZE, 1937.

BY MR. IAN FRANCIS WARWICK (Student, R.I.B.A.)



THE SOUTH-WEST ELEVATION



GROUND-FLOOR PLAN.

MUNICIPAL OFFICES AND ASSEMBLY HALL. DESIGN AWARDED THE ALFRED BOSSOM STUDENTSHIP, 1937.

BY MR. JOHN NEEDHAM, Dip. Arch. (Leeds), A.R.I.B.A.

of the study of commercial architecture in America. With this in view, the subject of the competitions is always of a commercial nature, and the importance of the Studentship will be realised when it is remembered that 90 per cent. of the buildings in our modern cities serve a commercial purpose. This year's subject was the municipal offices and assembly hall of a seaside town, combined with the provision of office spaces to be let for commercial purposes. This is a new departure, financially sound from the ratepayers' point of view, and the combination of administrative and commercial offices in the same building, if architecturally handled, should not in any way deprive the civic elements of the dignity which they deserve. There has not been a sufficient response to the competition Only two schemes were presented, one of which is of particular merit. I cannot do better than read the very expert comments made by the jury. The winner is "Ami," [Mr. John Needham] and of his scheme the jury say:—

"The author has shown, both by his planning and by his analysis of his own scheme, that he has given careful study to the programme and has grasped the particular points which the jury had in mind in drawing up this programme. By restricting the heights of his front and back portions he has concentrated his load on the solid portion of the site, thereby avoiding the necessity of complicated foundations.

"His financial calculations appear sound. The municipal offices portion is well planned and the commercial letting space is arranged in a manner which allows ample adaptability and good lighting, though the jury think that the office entrances on the ground floor are mean in character considering the amount of floor space which they would serve.

"Basement garages are a good idea, but the jury consider that fewer stanchions could have been employed throughout, giving more turning space for vehicles.

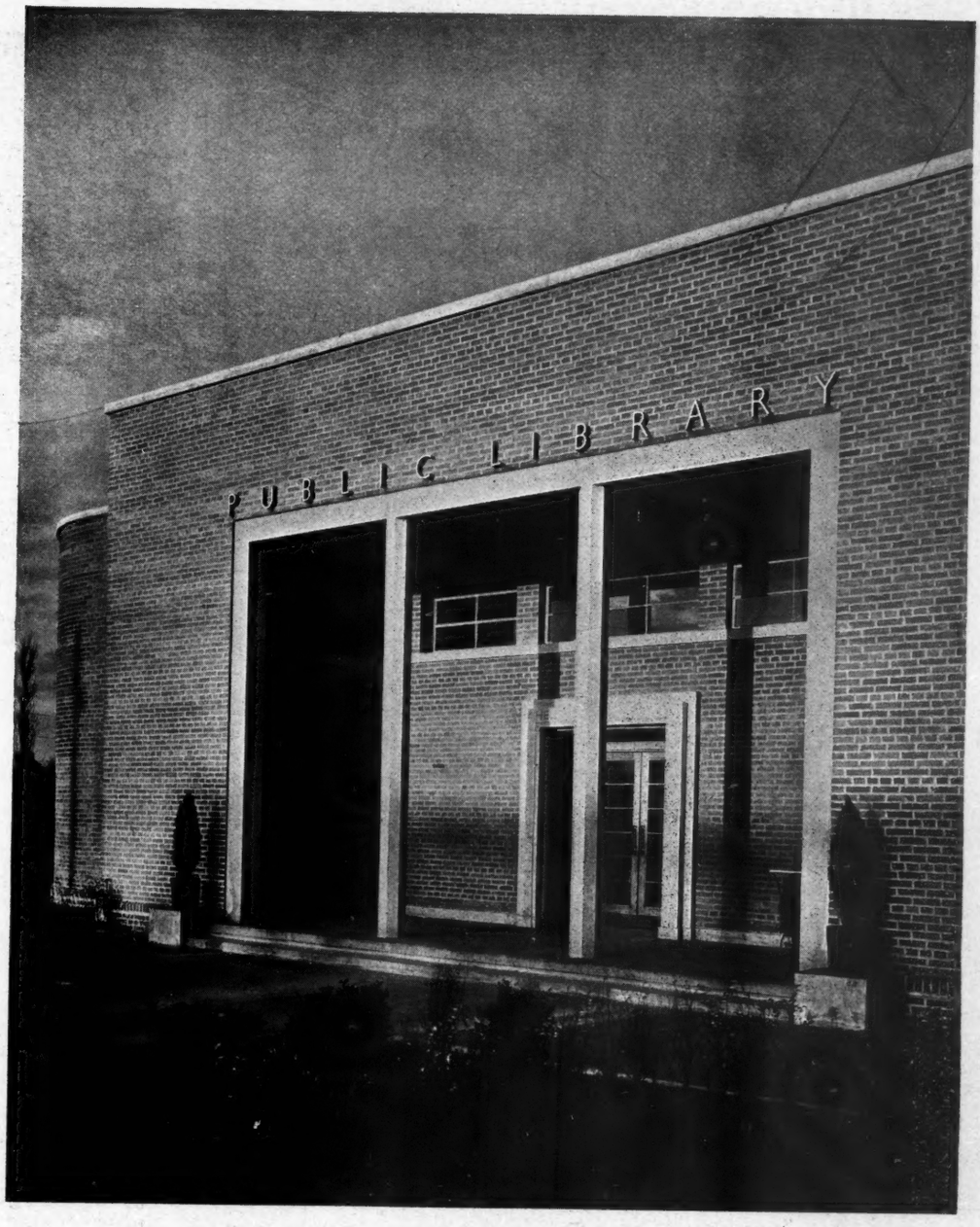
"The Portland stone slabs shown on the detail as being 4 ft. by 4 ft. suggest a lack of knowledge of this type of facing. Notwithstanding this, the jury consider that this is an excellent scheme in every way and shows a sound constructional sense, which is one of the objects of the Bossom prize."

THE GRISSELL MEDAL.—This competition is a useful reminder that construction is an essential element of architectural design. In view of the practical value which should attach to the competition, there seems usually to be little response to it. It may be that the necessary calculations frighten many away; yet, if these are necessary as a check, I feel inclined to think that juries would be satisfied principally if designs and details exhibited that quality, as necessary to architects as to structural engineers, which I might call "building sense." The problem set was simple—an exhibition hall 125 ft. wide and how to span it.

The three competitors cover the span with girders. That is possible nowadays, but it is open to question whether it is an economical proposition, especially with reinforced concrete.

"Mist" [Mr. W. A. B. Robertson] obtained the award for a carefully studied scheme, an attractive plan with a well-balanced and proportionate section, the height moderate enough for wind pressure not to be dangerous, but insufficient for vertical lighting only. The ingenious disposition of top-light with lay-light for concealed lighting between the girders was appreciated by the jury.

A vote of thanks to Mr. Billerey was proposed by Mr. T. A. Darcy Braddell, V-P.R.I.B.A., and seconded by Mr. C. G. Ammon, J.P., M.P.



DETAIL OF ENTRANCE.

THE HENRY A. COLE LIBRARY, NORRIS GREEN, FOR LIVERPOOL C.C.

MR. L. H. KEAY, O.B.E., F.R.I.B.A., ARCHITECT.

THE HENRY A. COLE LIBRARY, NORRIS GREEN, FOR LIVERPOOL C.C.

MR. L. H. KEAY, O.B.E., F.R.I.B.A., ARCHITECT.

YOUNG PEOPLE'S DEPARTMENT.

The Norris Green Branch of the Liverpool Public Libraries, named the Henry A. Cole Library in recognition of the civic services rendered by Alderman Henry A. Cole, J.P., has been designed by the Director of Housing (Mr. L. H. Keay, O.B.E., M.Arch., F.R.I.B.A.), in co-operation with the Chief Librarian (Mr. J. F. Smith. The cost of the new building, including land, furniture and fittings, amounted to £12,750.

Jacobean sand-faced bricks have been used externally, with ivory coloured cement joints, while the metal casement windows have Portland stone surrounds. The portico, which is flood-lit at night, measures 27 ft. by 7 ft., and has two polished Portland stone columns. The main entrance hall has walls of Swedish green and Portor Français marbles, golden Travertine and biscuit-coloured tiles, while the floor is of light green terrazzo tiles. The outer entrance doors are of oak and fold back into recesses, disclosing double inner doors, also of oak, entirely glazed in large panes, as are all the main internal doors. Three illuminated cases for the display of new books are a feature of the main entrance hall.

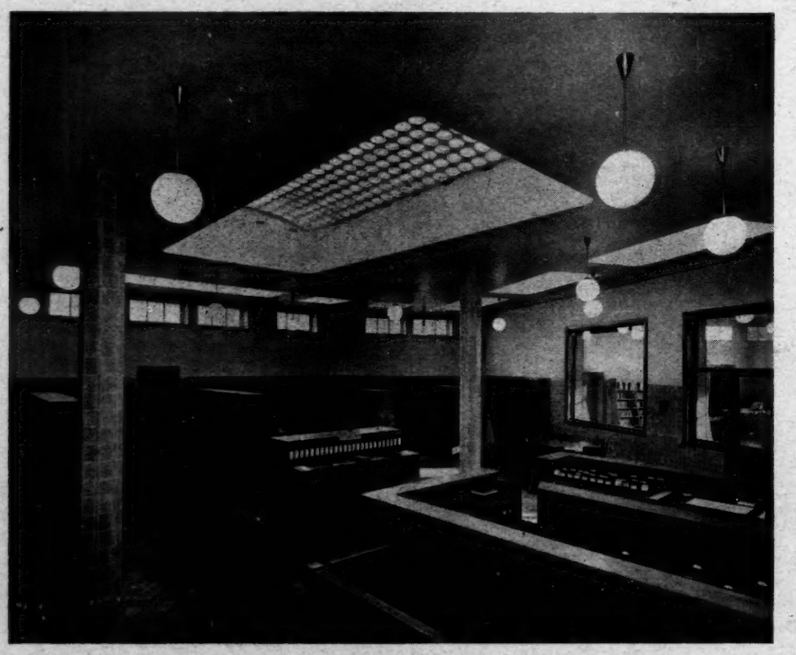
The three public rooms, which are separated by large plate-glass partitions, are fitted with bookcases, newspaper stands, counters, tables, etc., of oak, without mouldings, lightly fumed and polished. The floors are of oak blocks, tongued and grooved. In the adults' lending library fourteen "Lenscrete" eight-inch concave roof lights admit an abundance of natural light. The modern bookcases, which do not exceed 6 ft. in height, slope at a convenient angle. The wall cases rest on the brick and tile plinth, 18 inches from the floor. All walls not covered with bookcases have 4-in. square biscuit-coloured tiles, with white cement joints, up to a height of 6 ft., the wall space above being in light stone "Walpamur." The ceilings are in cream.

In the young people's department a projection room is provided for the operation of a cinematograph, for use in connection with lectures and story hour talks to children. All windows and screens in this department are fitted with dark green roller blinds, encased in wood, to exclude the light, while films or slides are being shown. A spiral staircase from this department admits to the roof of the entrance portico, as well as to the flat roofs.

The general reading room (57 ft. by 25 ft. by 16 ft. high) is provided with wall stands for 25 newspapers, together with an adequate supply of reference books and periodicals, the latter being displayed in "Quickseen" cases. The room contains seating accommodation for 72 persons. The Librarian's room, and various staff rooms, etc., are on the ground floor at the rear of the building. The Library contains over twenty thousand books, representative of all classes of literature.

The heating of the building is by Crittall's invisible ceiling panel-warming system, this library being the first in Liverpool in which the system has been used. There are three sculptured panels in low relief, by Mr. H. Tyson Smith, two in the main entrance hall and one over the entrance to the young people's department. The builders were Messrs. Tysons (Contractors), Ltd., Liverpool. Sub-contractors were:—

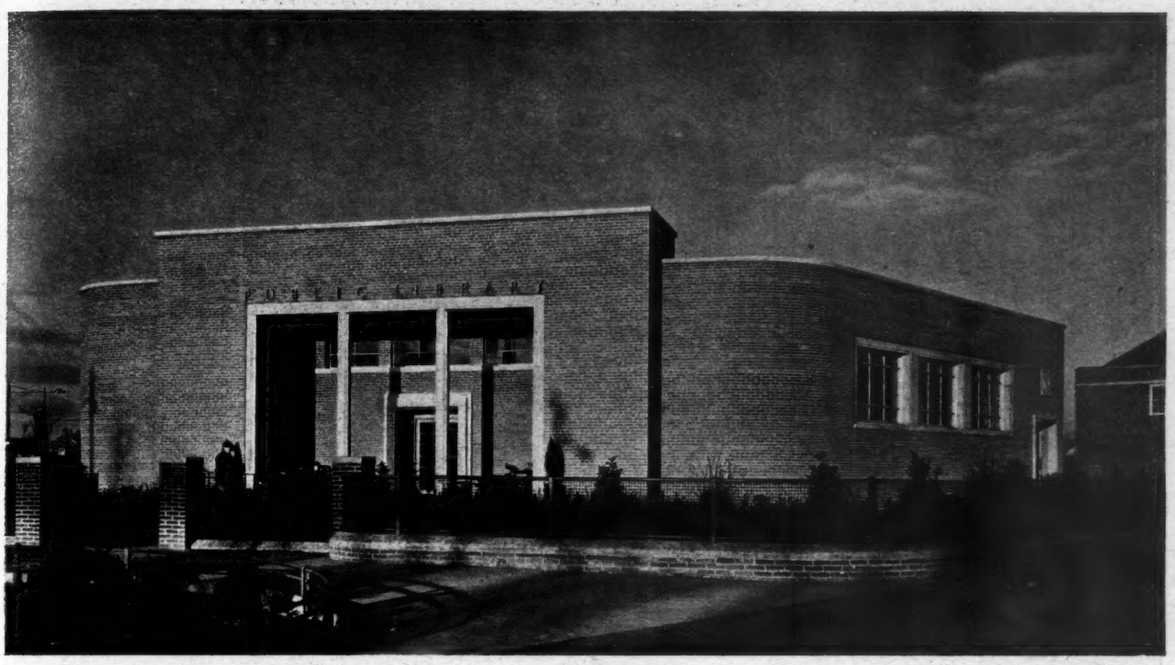
Waring and Gillow (1932), Ltd., fittings and furniture; Buckley Junction Metallic Brick Co., Ltd., facing bricks; R. W. Brooke and Co., Ltd., oak and pine block floors; Richard Crittall and Co., Ltd., invisible ceiling panel warming system; Crittall Manufacturing Co., Ltd., metal windows; Ferro-concrete (Lancashire), Ltd., boundary wall coping; General Electric Co., Ltd., electrical fittings; T. Jones and Co., electrical installation; Lenscrete, Ltd., roof lights; Liverpool Gas Co., domestic hot water system; G. Lowe and Sons, Ltd., iron railings, gates and spiral staircase; Quiggin Bros., Ltd., door furniture and lettering over portico; William Rowlands and Co., turf and shrubs; Troughton and Young, Ltd., electrical fittings; Trussed Concrete Steel Co., Ltd., reinforced concrete work; John Stubbs and Sons, marble, tiles and terrazzo work; Synchromatic Time Recording Co., Ltd., electric clocks; and Williams and Watson, Ltd., bronze display windows.



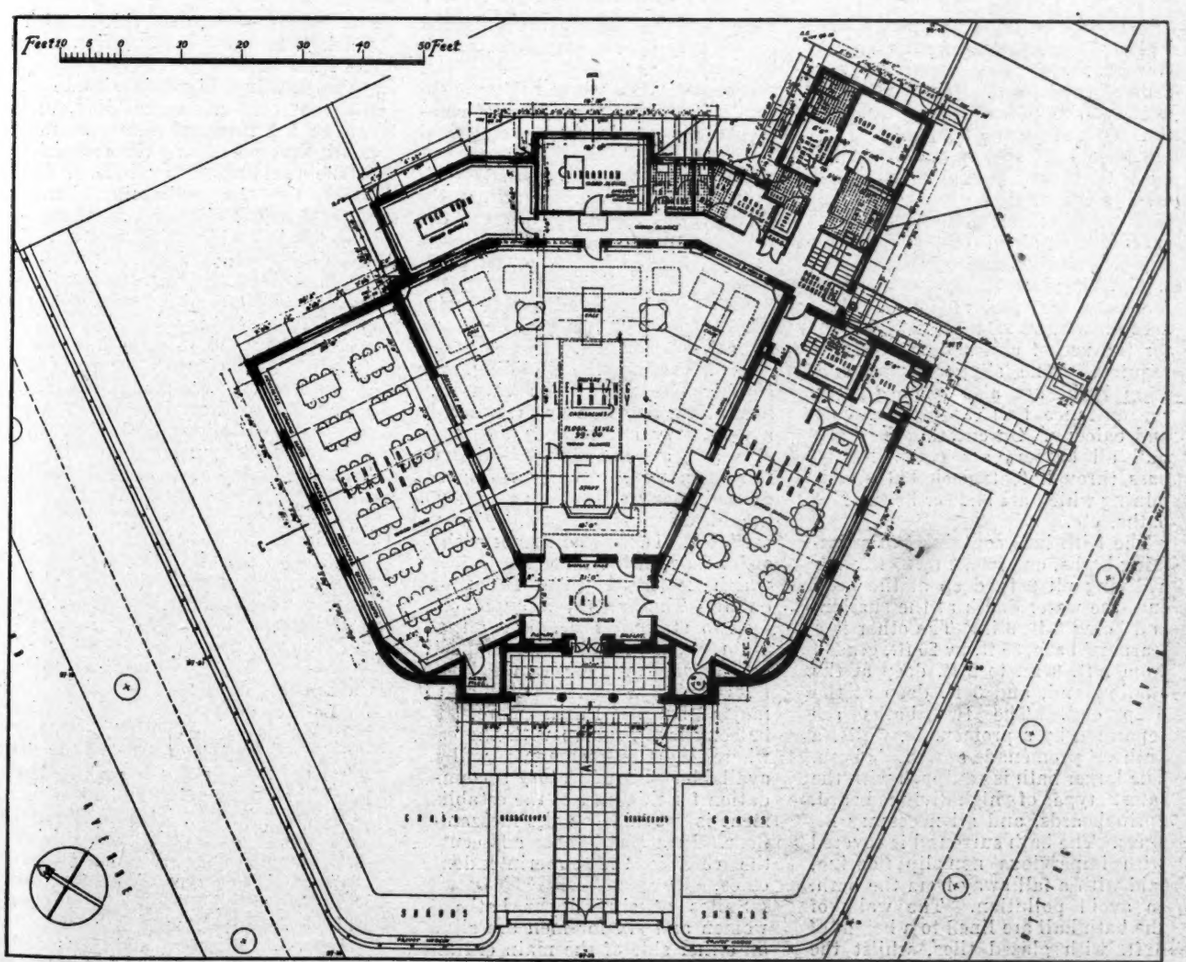
THE ADULTS' LENDING DEPARTMENT.

HENRY A. COLE LIBRARY, NORRIS GREEN, FOR LIVERPOOL C.C.

MR. L. H. KEAY, O.B.E., F.R.I.B.A., ARCHITECT.



GENERAL VIEW.

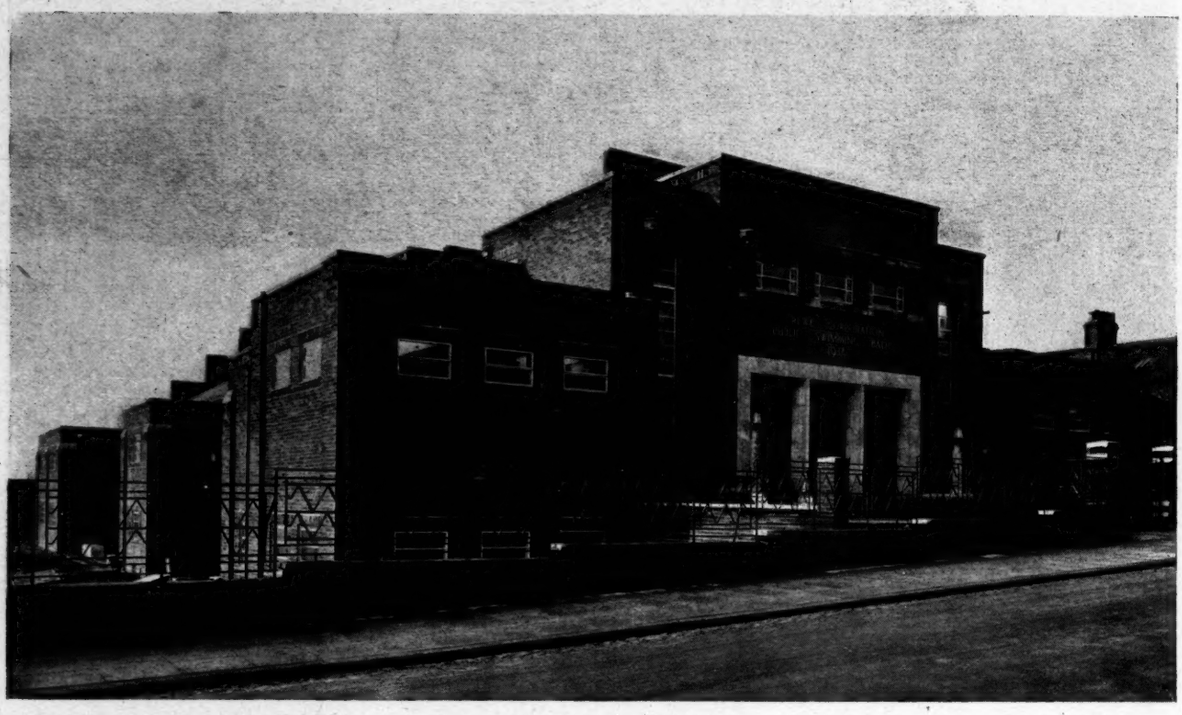


PLAN.

NEW SWIMMING BATHS, FOR CREWE BOROUGH COUNCIL.

MR. LEONARD REEVES, A.M.INST.C.E., BOROUGH ENGINEER AND SURVEYOR.

MR. H. KNOWLES, L.R.I.B.A., ARCHITECTURAL ASSISTANT.



GENERAL VIEW OF EXTERIOR.

THIS new building occupies a site in Flag-lane, overlooking the Valley Gardens, and quite near to the centre of the town. The new building has the following accommodation: On the ground floor there is an entrance hall approximately 23 ft. by 39 ft. with a central ticket office serving the whole building. On the right and left of the ticket office, access is obtained to the dressing cubicles for men and women respectively. There are 71 of these cubicles for each sex, together with toilet accommodation and dressing rooms for the use of children as occasion requires. The slipper baths and foam baths are also reached from the entrance hall, as are the café and balcony. On entering the bath hall all bathers are compelled to pass through footsplash baths, adjoining which are shower baths, foot baths, etc.

The bath hall contains two swimming baths, one 100 ft. by 35 ft. with a diving pit 9 ft. deep at the deep end, the water depth at the shallow end being 3 ft. 6 in. The other is a learners' bath, 35 ft. by 20 ft., graded from 1 ft. 9 in. to 2 ft. deep at the shallow end, and 3 ft. deep at the deep end. The two baths are separated by a promenade, whilst a bathers' promenade surrounds both. The larger bath is equipped with the latest type of high-diving board, springboards, and all necessary fittings. The bath surround is covered with impervious non-slip flooring, laid with a fall away from the bath, to avoid pollution. The walls of the bath hall are lined to a height of 6 ft. with glazed tiles, whilst the baths themselves are lined with faience blocks and fitted with scum channels in the same material. Light and ventilation are obtained by the type of roof employed, which is further amplified by side-wall casements. The whole of the opening lights in this top light and casements are controlled by electrical gear.

The baths are supplied with heated water which is continuously circulating through filters, the whole of the contents of both baths being changed once every four hours. In addition thereto, the water is sterilised and injected with compressed air before being returned to the baths.

In designing the building, the sloping site was taken into consideration, and this has resulted in a two-storey building on the south side and a one-storey building on the north side. The rooms on the ground floor on the south side house the filtration plant, laundry plant, staff, etc. Those who do not wish to swim may watch from the balcony which is fitted with 179 tip-up chairs. The balcony is approached by two staircases leading off the main entrance hall, and is partly cantilevered over the learners' bath, thus giving a perfect view of the major bath. Furthermore, the balcony is linked up with the café, where light refreshments will be available, whilst lavatory accommodation for this part of the establishment is provided on the mezzanine floor. In a small room adjacent to the café is the superintendent's office.

Suites of six slipper baths for women and six for men are situate on either side of the main entrance hall, and several of these slipper baths are fitted up for use as foam baths. Adjoining these foam baths are rest rooms, provided with couches, for use in connection with the foam baths.

The heating plant is situate at the west end of the building, and can be fed from the street at that point, thus preserving the amenities of the building as a whole. The water for the swimming baths, slipper baths, shower baths, lavatory bowls and heating is warmed by calorifiers heated by low-pressure steam boilers fed by mechanical stokers. The establishment generally is heated through radiators by a low-pressure circulatory hot-water system. A vertical boiler provides the necessary steam for the laundry. Pumps are used for accelerating the various circulations. Both baths are fitted with under-water lights. The dressing-rooms are naturally lighted by a series of lantern lights, with side-opening casements for ventilation.

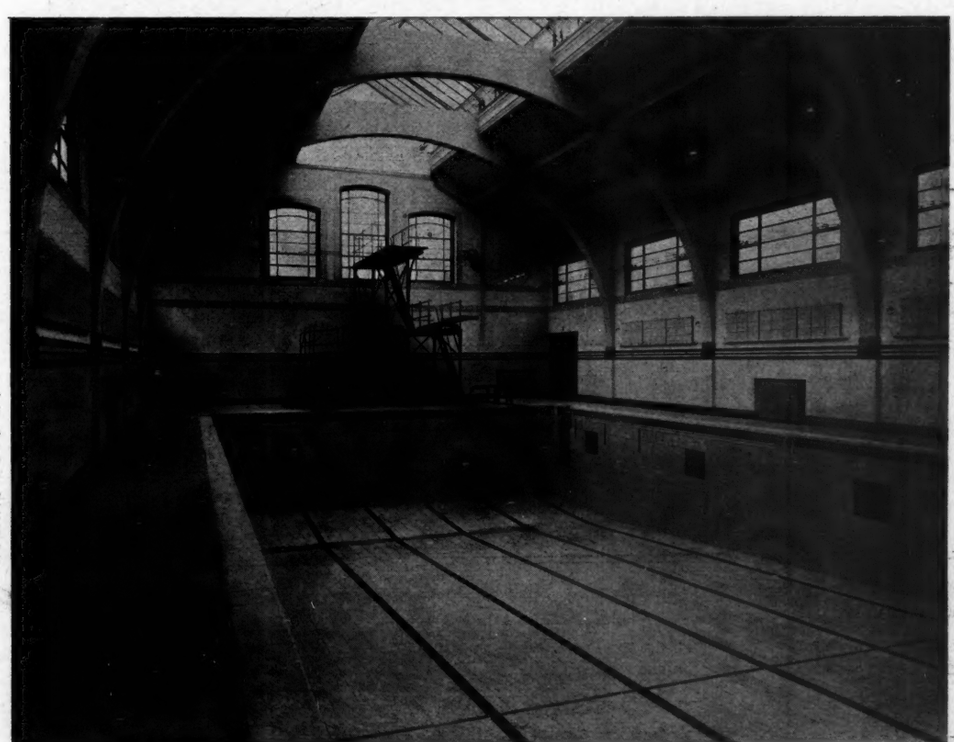
The elevations have been executed in sand-faced multi-coloured brickwork, with reconstructed stone dressings, and have been designed to suit the prominent position of the site. The finishings internally have been designed essentially to fulfil the purpose for which the building has been erected, with the maximum satisfaction, bearing in mind the desirability of making the whole both attractive and pleasing.

Messrs. L. G. Mouchel and Partners, Ltd., acted as consulting engineers for the reinforced concrete, and the general contractors were Messrs. E. Taylor and Co., Ltd. Sub-contractors were:—

Asphalt, Limmer and Trinidad Lake Asphalt Co., Ltd.; filtration plant, Ricks, Sutcliffe and Bowden, Ltd.; heating plant, Z. D. Berry and Sons, Ltd.; lining to baths, Shaw's

VIEW LOOKING TOWARDS SHALLOW END OF MAJOR BATH, WITH LEARNERS' BATH, BALCONY AND CAFE BEYOND.

Glazed Brick Co., Ltd.; floor tiling to footsplash baths, etc., surround to bath hall, J. C. Edwards (Ruabon), Ltd.; wall tiling to bath hall, floor tiling to slipper baths, etc., Craven, Dunnill and Co., Ltd.; terrazzo, Conway and Co.; rubber flooring, Dunlop Rubber Co., Ltd.; glazed fireclay sanitary fittings, The Farnley Iron Co. (Fireclay Works), Ltd.; metal fittings, foot pedestals, etc., Gummers, Ltd.; windows and gearing, rainwater heads, Henry Hope and Sons, Ltd.; wrought ironwork, W. Durose and Sons; "Emalux," John Ellis and Sons, Ltd.; lift, Thornborough and Sons (Manchester), Ltd.; artificial stone dressings, Concrete Unit Co., Ltd.; electrical fittings, underwater lighting fittings, General Electric Co., Ltd.; electrical installation, The Broughton and Irlam Electrical Co., Ltd.; laundry plant, Thomas Bradford and Co.; curtains and fittings, John Leach; wood block flooring, J. Hands; plastering, Plasterers (Liverpool and Chester), Ltd.; plumbing, John Turton and Sons, Ltd.; slating, John Hodson and Co.; painting, C. and J. Percival; ironmongery, Lockerbie and Wilkinson, Ltd.; lantern lights, Mellowes and Co., Ltd.; external facings, Buckley Junction Metallic Brick Co., Ltd.; internal facings, Hooton Brickworks, Ltd.; common bricks, Potteries Brick Co., Ltd.; gravel and elutriated sand, Trentham Gravel Co., Ltd.; balcony seating, Beck and Windibank; clocks, John Smith and Sons; special glazing, Pilkington Bros., Ltd.; paint, Nobel Chemical Finishes, Ltd.; diving stage, H. Hunt and Son; ticket machines, Automaticket, Ltd.; steel reinforcement, Whitehead Thomas (Strip and Bar) Co., Ltd.; chlorinator and ammoniator, Wallace and Tiernan, Ltd.; Zotofoam equipment, Soapless Foam Co., Ltd.; building sand, Betley Sand Pit; "Pudlo," Kerner-Greenwood and Co., Ltd.



VIEW LOOKING TOWARDS DEEP END OF THE MAJOR BATH, SHOWING DIVING STAGE AND SPRINGBOARD.

NEW SWIMMING BATHS, FOR CREWE BOROUGH COUNCIL.

MR. LEONARD REEVES, A.M.INST.C.E., BOROUGH ENGINEER AND SURVEYOR.
MR. H. KNOWLES, L.R.I.B.A., ARCHITECTURAL ASSISTANT.

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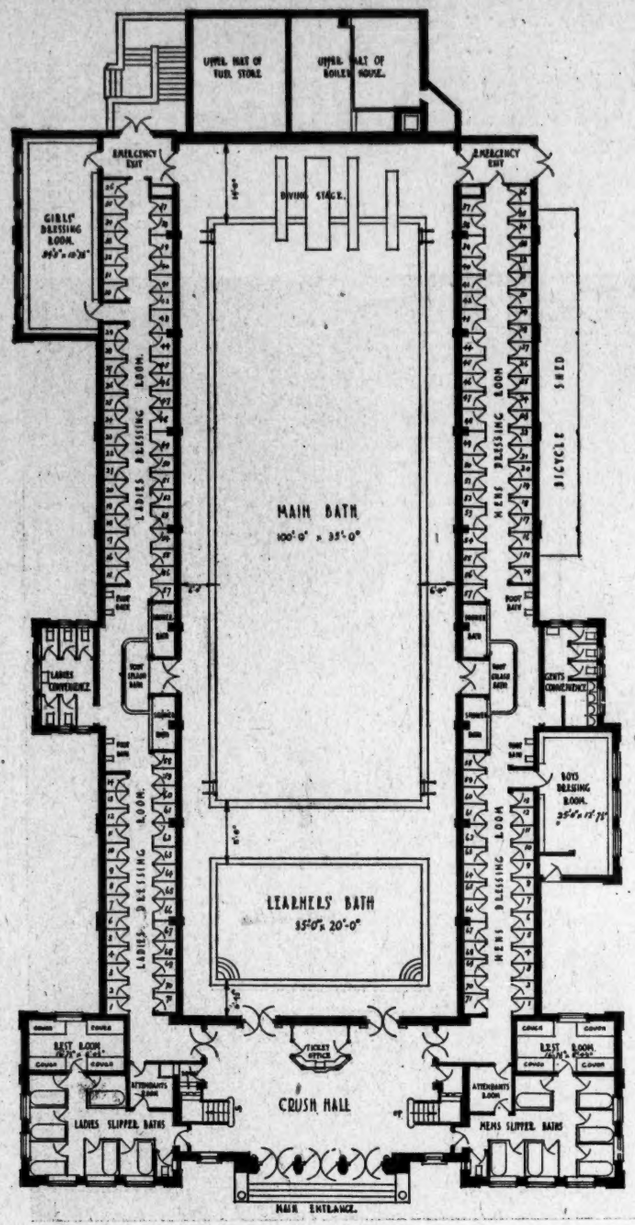
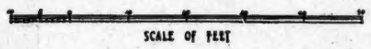
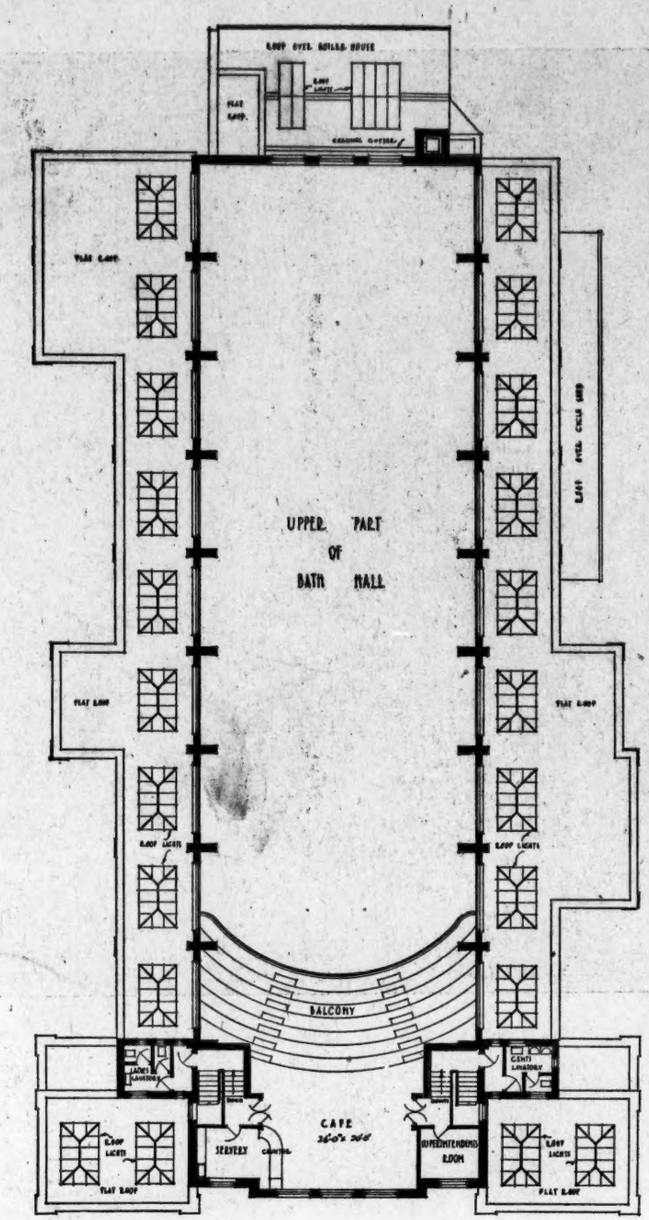


GROUND-FLOOR PLAN.



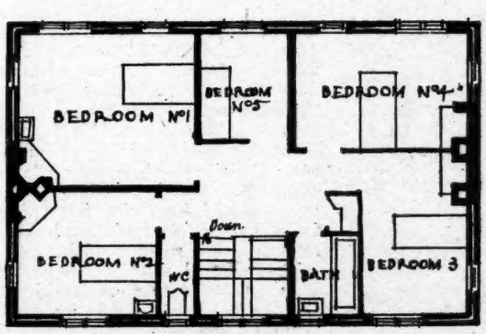


FIRST-FLOOR PLAN.

VICARAGE OF ST. OLAVE'S CHURCH, NORBURY.

MR. TERENCE CARR, A.R.I.B.A., ARCHITECT.

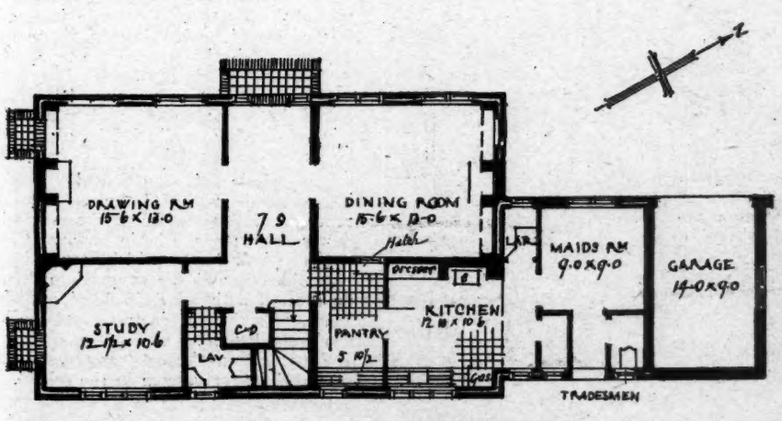
THE ENTRANCE FRONT.



FIRST-FLOOR PLAN.

THE Vicarage of St. Olave's Church, Norbury, was erected for the occupation of the Rev. R. K. Haslam, M.A., and was blessed by his Lordship the Right Rev. the Bishop of Kingston. The walls are of 11-in. brick cavity construction, with "Bruton" facing bricks externally and Flettons internally. The bricks below damp-proof course are London stocks. Owing to the nature of the heavy clay soil, the foundations were designed on the raft principle, the raft being on average 8 in. thick. The general contractors were Messrs. Hudson Bros., of Clapham Junction.

The windows are metal casements, with wood frames, supplied by Crittalls. The roofing tiles are Roberts, Adlard's "pinion" pantiles on a roof which is boarded, felted, battened and counter-battened. The surrounds to the sitting-room and dining-room fireplaces are of Blue Hornton stone, the interiors being supplied by Skeet and Jeffs, of Woking. Other sub-contractors were: J. Bolding, sanitary fittings; A. Dean and Co., electrical work; and Yannedis and Co., door furniture. The contract price was **£2,163.**



GROUND-FLOOR PLAN.

COMPETITION FOR NEW SENIOR MIXED SCHOOL, KEIGHLEY.

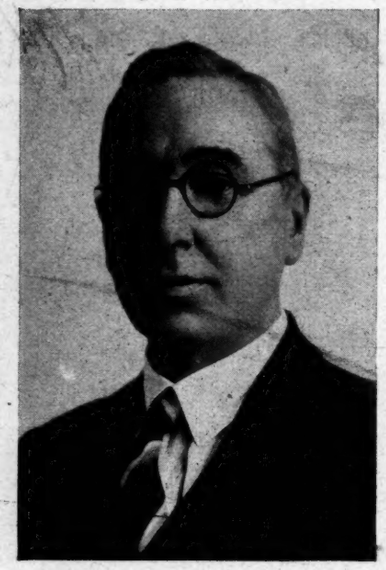
THE WINNERS' REPORT.

FOLLOWING is the report of the winners, Messrs. Frederick Evans, F.I.A.A., and F. Hamer Crossley, A.R.I.B.A. (Gray, Evans and Crossley).

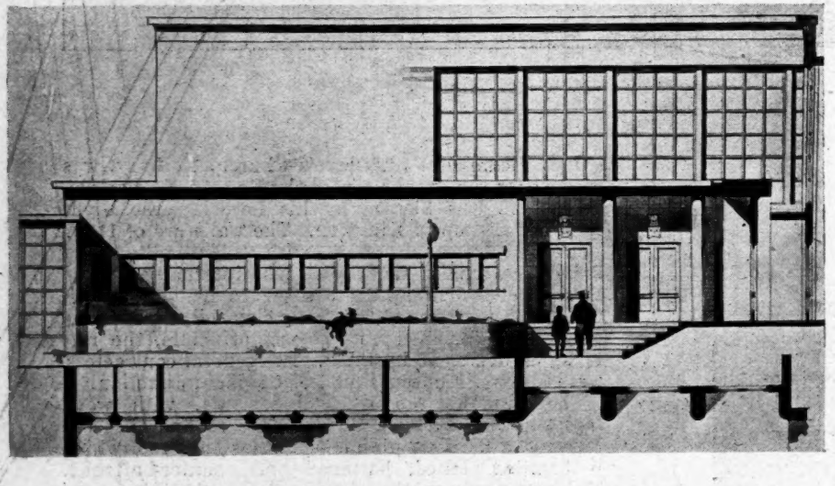
After visiting the site and giving careful consideration to the levels it was considered wisest to place the building as near as possible parallel with the contours. To do so provided the classrooms with the necessary south-east aspect and, in addition, a convenient dual approach from the roads on the southerly and easterly boundaries. Furthermore, a narrow elevation to the prevailing winds automatically results with one unit sheltering the other.

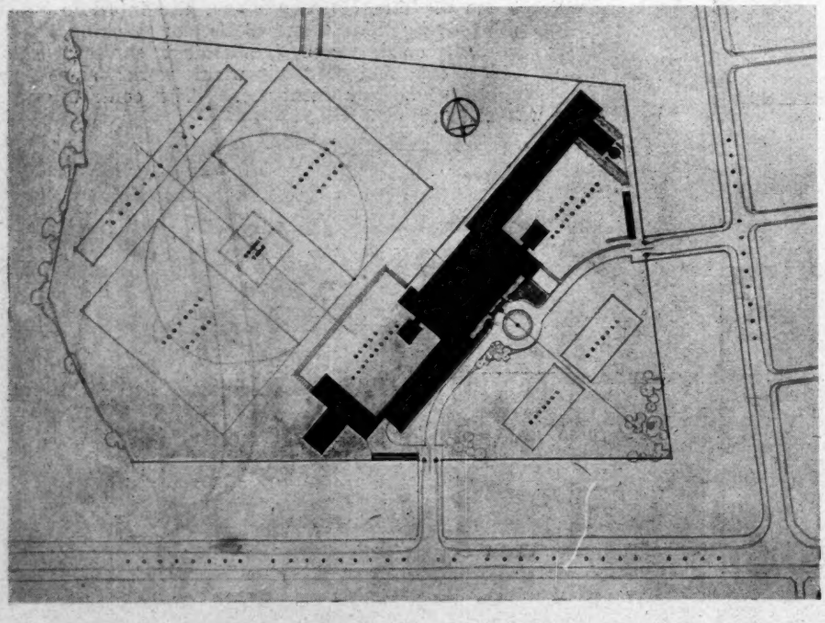
Whilst a symmetrical plan was not to be ignored, or a plan where a lower ground floor was introduced under part of the building to meet the fall of the land, it appeared that either of these would not prove so efficient as an open plan where the whole school is roughly at the same level throughout. The latter plan being adopted, careful consideration has been given to the regrading of the levels, and excavated material should balance that required for filling-in purposes.

It will be seen, therefore, that the plan provides for an easy access of boys and girls from playgrounds to cloakrooms, cloakrooms to hall, and from the hall to the various departments. The plan is compact and convenient and has been designed to permit of the maximum amount of sunshine. All teaching rooms would have sunshine, and the long wing accommodating the art room, handicraft room, etc., which are better with a northerly aspect, allows the sunshine to enter by means of windows at a high level. Another feature of the plan is the manner in which it could lend itself for social functions, in the event of which the teaching rooms could be completely closed off. It will be noticed, too, that the classrooms are so planned that the omission of the two referred to in the conditions would not in any way interfere with the working of the school.



MR. FREDERICK EVANS, F.I.A.A., AND MR. F. HAMER CROSSLEY, A.R.I.B.A., whose design has been placed first in this Competition.





Above: DETAIL. *Below:* LAY-OUT PLAN.

THE WINNING DESIGN. BY MESSRS. EVANS AND CROSSLEY.

CONSTRUCTION.—The method of construction has arisen from consideration of cost and by a desire expressed by the promoters for the use of local stone, which, it must be agreed, is the most suitable for the purpose. Economy in planning, construction and maintenance cost have been regarded as of primary importance. The plan has been designed in units of 8 ft., ensuring wherever possible standardisation of the various materials. In the teaching-room generally the construction consists of concrete floors and hollow tile roofs not more than 5 in. deep, spanning on beams. In the classrooms the intermediate supports are steel columns to ensure as little obstruction as possible. The roofs elsewhere would be of similar construction; the ribs of the hollow tile form an excellent key for the plaster. The advantages to be gained from this form of construction from the viewpoint of sound and heat transmission would recommend it.

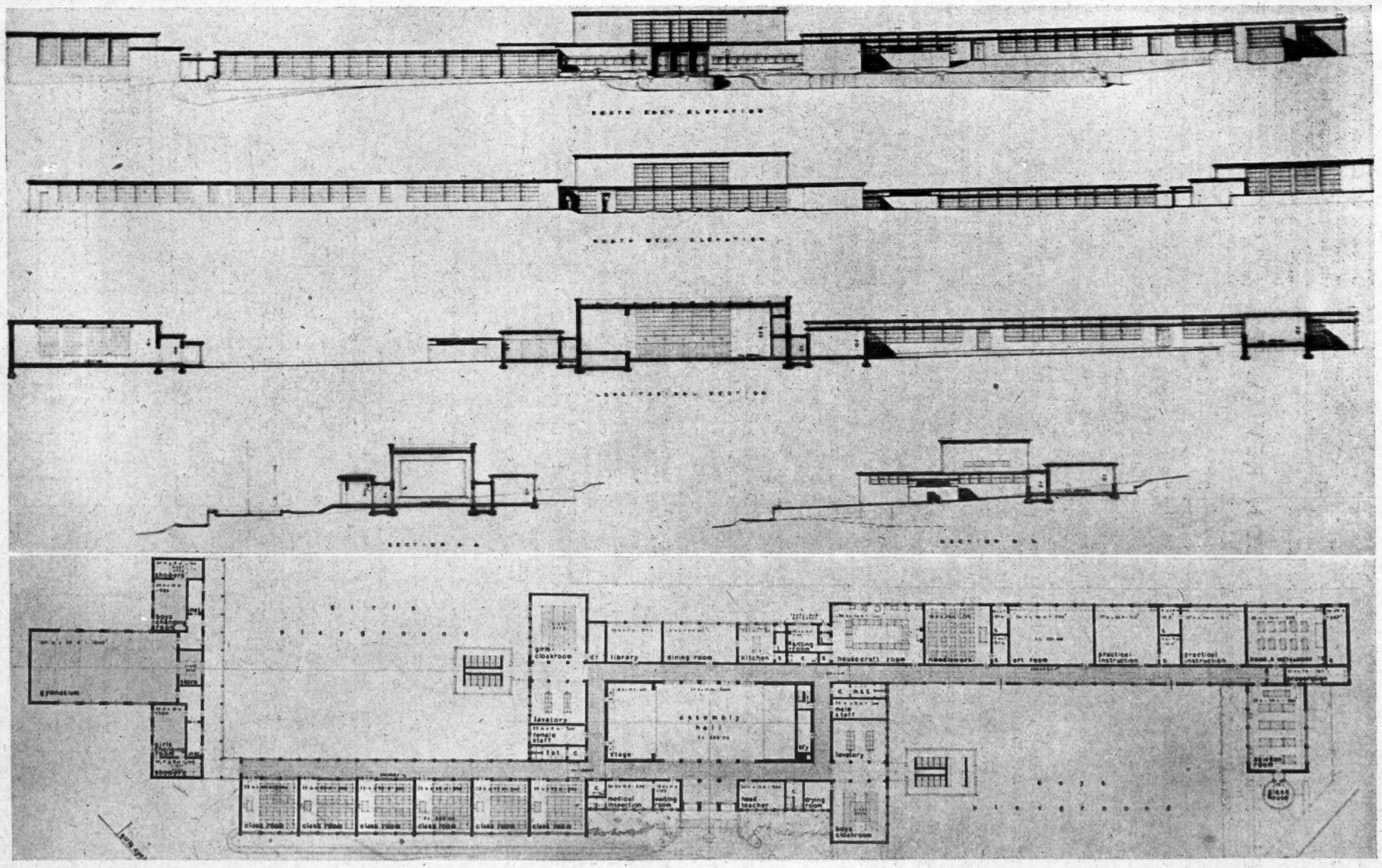
The external walls would be built in local stone finished with a cut face, built in courses 6 in. on bed, with dressed masonry, the whole being backed with brickwork. The internal partitions would be 4½ in. brickwork. A small amount of faience would be employed around the main entrance, including the panels into which the external doors are inserted. The faience would be in a bright cream colour to contrast with the sombre colour of the local stone. The whole of the windows would be of a heavy section metal. The flat roofs would be waterproofed with three-ply bituminous sheeting on which 3 in. of gravel would be placed for insulation.

The whole of the school floors would be covered with Granwood blocks, excepting, of course, the lavatories and cloak rooms, which would be in terrazzo tiles. The assembly-hall floor would be covered with oak wood blocks, and the gymnasium floor would be covered with oak-strip flooring. The walls generally would be plastered and finished in a washable distemper or a flat-paint finish.

VENTILATION.—Direct cross-ventilation is provided to every room in the school.

HEATING.—Heating will be by means of low-pressure hot-water system as required.

ESTIMATE OF COST, EXCLUSIVE OF ARCHITECTS' AND QUANTITY SURVEYORS' FEES.—Gymnasium unit, 76,383 cubic ft. at 10d.,



COMPETITION FOR NEW SENIOR MIXED SCHOOL ON GUARD HOUSE SITE, KEIGHLEY : DESIGN PLACED FIRST.

BY MESSRS. FREDERICK EVANS, F.I.A.A., AND F. HAMER CROSSLEY, A.R.I.B.A. (MESSRS. GRAY, EVANS AND CROSSLEY).

£3,183; corridor to gymnasium, 11,312 cubic ft. at 6d., £283; classrooms, housecraft room and science-room wing, girls' offices, boys' offices, 187,017 cubic ft. at 1s., £9,351; corridors, girls' cloaks and lavatory, boys' lavatory, 117,347 cubic ft. at 10d., £4,890; dining-room and library unit, 28,582 cubic ft. at 1s. 1d., £1,548; medical inspection, headmaster unit, 23,638 cubic ft. at 1s. 2d., £1,379; glass house, 2,505 cubic ft. at 1s. 6d., £188; heating unit and boys' cloaks, 21,875 cubic ft. at 9d., £820; assembly hall, 81,685 cubic ft. at 1s. 1d., £4,424; cycle sheds, 7,680 cubic ft. at 6d., £192—total, £26,258. Allow the sum of £1,000 for entrance gates and fencing the site, £1,000. Allow the sum of £2,000 for constructing terrace to classrooms, retaining wall to playgrounds, flower-boxes, ornamental lamps, flagpole, etc., £2,000.

THE KEIGHLEY COMPETITION REVIEWED.

By WESLEY DOUGILL, M.A., A.R.I.B.A.

If we except the epic contests of Bexhill and 66, Portland-place, it is doubtful whether any competition within the last ten years has been more hotly contested than this one. One hundred and twenty-one schemes, including two from Bucharest and one from Budapest, were submitted, and it can safely be said that many more were begun but were eventually consigned to the waste-paper basket by their authors, who found the difficulties inherent in the site too great for them.

The conditions called for a senior mixed school, on co-educational lines, for 240 girls and 240 boys. The accommodation included a hall of 2,000 sq. ft., with a stage, projection-room and chair store; gymnasium, with auxiliary accommodation; dining room; six class-rooms (mixed); science, housecraft, art, needlework; wood and metal work rooms, with stores, etc.; two practical instruction rooms, library, medical inspection and waiting room; staff rooms; the requisite provision of cloak-rooms and offices; two cycle sheds, each for 50; and heating chamber. The surplus of the site was to be laid out to the best advantage for playgrounds and playing fields on the scale suggested by the Board of Education. Provision had to be made for the temporary elimination of two of the class-rooms. Rigid economy in planning, construction and maintenance costs had to be exercised, although in virtual opposition to the second of these injunctions the promoters expressed a preference for the use of local sandstone.

The 8½-acres site, which is highly exposed to the south-west winds, is approximately a rectangle, with the north and south sides some 230 yards long and the east and west 160 yards. It has an even fall of 100 ft. in a diagonal direction from north-west to south-east, so that rooms along the contours face in either of these two directions. Access to the site will be from roads near the middle of the north, east and south boundaries. On these three sides future houses will back on to the site, whilst it is anticipated that the land to the west will remain undeveloped.

Absolute freedom was given to the competitors as to where the building should go, which of the three roads should be used for access, and whether the building should be a single- or multi-storey one. No cost was stipulated. There can be no doubt that the openness of the conditions in these respects gave added piquancy to the competition and, coupled with the great interest now being evinced by architects in the school type of building, explains the abnormally large entry.

Before analysing the schemes, some comment on the handling of the competition seems called for. Both the conditions and instructions, and also the answers to questions were models in their clarity and decisiveness, and, most important of all, they left no room for doubt as to what was an instruction and what was merely a suggestion.

The Schemes Generally.—It is possible to classify the designs in two ways. Firstly, as to their position on the site. On this important matter there was a remarkably even division of opinion. In 50 schemes the building is in the north-west corner, along the contours and commanding the site as a whole. Access is from the road on the north side. In 49 schemes the building is in the south-east and more sheltered corner, again along the contours, and with access from the east and south roads. In the remaining schemes the centre of the site, towards the middle of the northern boundary, has been selected for the building. Neither of the latter positions is satisfactory. With the building in the centre the use of the surplus land for playing fields is considerably reduced, while if placed on the northern boundary the building runs across the contours, with consequent awkward internal levels, unsatisfactory elevations, and heavy excavation costs.

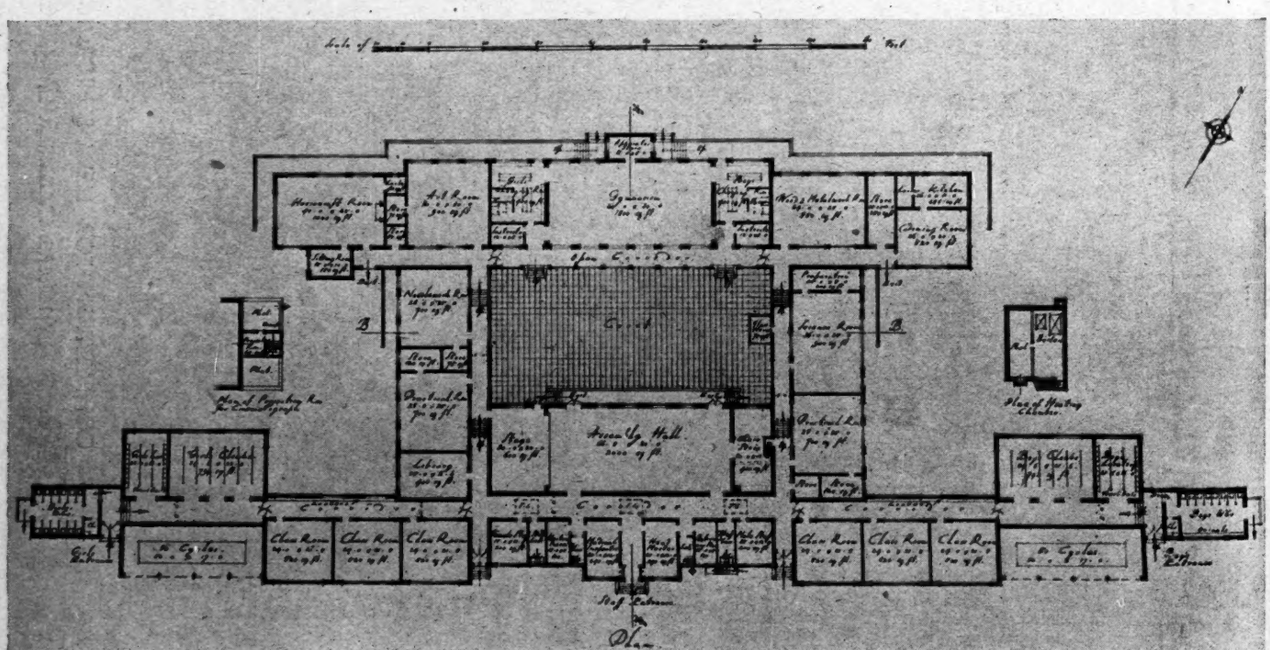
The second classification is according to the number of storeys. Approximately 20 schemes, including the first and second prize ones, are single-storey throughout. The remainder are, for the greater part, single-storey, but with sections, usually the six class-rooms, carried up an extra storey. The scheme awarded third prize comes in this category.

One of the most pleasing features of the competition is that it shows a complete or almost complete release from the hidebound, stereotyped planning and design towards which school buildings were rapidly degenerating. The plans show an extraordinarily wide variety of form, and although 30 of them are on symmetrical lines, even these are highly varied. The internal court type of plan, so popular during the last 20 years, has not been favoured, only 11 schemes out of the 121 being on these lines.

Judging by this and other recent school competitions, there is still an abysmal difference of opinion on the question as to which is the best aspect for teaching rooms other than the normal class-rooms. The winning scheme, here, faces them north-west, the third prize scheme shows them south-east like the class-rooms, and this division is representative of the schemes generally.

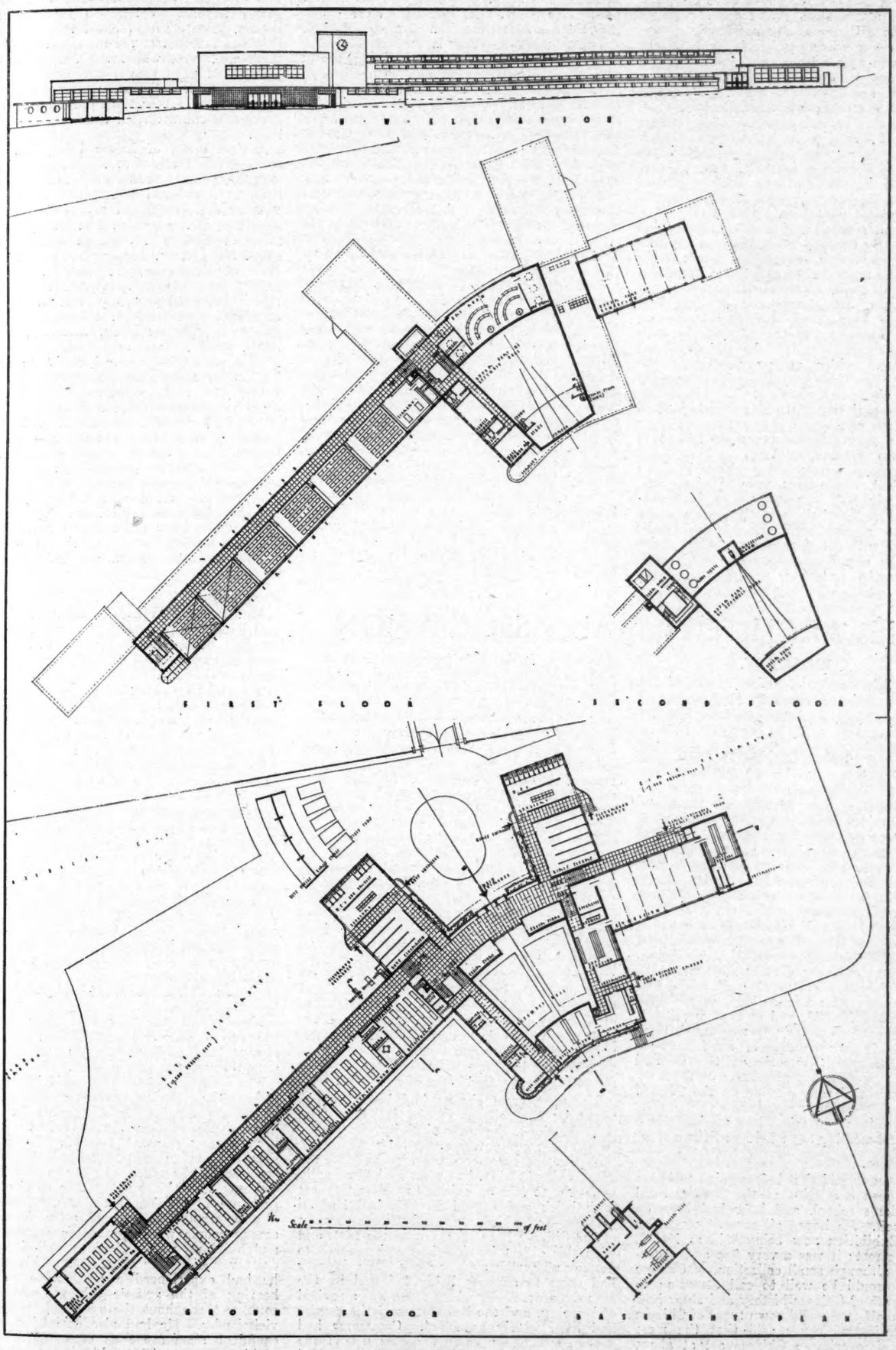
The First Prize Design.—In the winning scheme the building, a single-storey one, runs along the contours and across the south-east corner of the site. Convenient access is provided by the two approach roads. The six class-rooms face south-east, and all the teaching rooms, excepting the science room, north-west. The assembly hall, situated at the middle of the plan and surrounded by all the non-teaching accommodation, ingeniously separates the two groups. The head-teacher's room and the medical inspection rooms are admirably placed near the main entrance, and the cloak-rooms, offices and entrances for the children are equally well placed, excepting that the office blocks project somewhat awkwardly into the playgrounds.

The boys' playground occupies a U-shaped recess on the east side of the building, and



COMPETITION FOR NEW SENIOR MIXED SCHOOL ON GUARD HOUSE SITE, KEIGHLEY: PLAN OF DESIGN PLACED SECOND.

BY MESSRS. R. S. DIXON AND N. D. QUICK, FF.R.I.B.A.



COMPETITION FOR NEW SENIOR MIXED SCHOOL ON GUARD HOUSE SITE, KEIGHLEY: DESIGN PLACED THIRD.

BY MESSRS. MARSHALL AND TWEEDY, FF.R.I.B.A.

the girls' playground a similar recess on the west side. Both playgrounds abut on corridors and not against class-rooms; nuisance from noise is therefore eliminated. The playgrounds are effectively protected by buildings from south-west winds and, what seems equally important on an exposed site such as this, from the north-east winds. This is a point most competitors have overlooked.

The placing of the gymnasium is perhaps doubtful. Although it is conveniently related to the playing fields, its position in relation to the main building, and, in particular, to the rooms at the northern end of the latter, is not so good. A more central position would have been better.

The plan, generally, is simple and straightforward. By running along the contours and by being as narrow as possible, it will entail an absolute minimum of excavation costs and of internal steps. The elevations and sections, again, are simple and direct. Flat roofs have been used throughout, without parapets, excepting in the case of the hall. The class-rooms are lighted and ventilated by windows which occupy practically the whole of one side, together with clerestory openings above the corridors. The elevations, unlike the majority of those submitted, show appreciation of the fact that a stone building requires a very different technique from that of a stucco or brick building.

THE SECOND DESIGN.—This scheme is of the symmetrical, single-court type of plan, and, like the winners', is placed across the south-east corner. The hall is at the centre of the plan, and a court and the gymnasium lie behind it, with the class-rooms, cloaks, cycles and offices occupying wings on either side. A noteworthy feature is the placing of the cycle sheds. These are within the main building. The playgrounds, which always tend to be noisy, abut directly on the teaching-rooms, a defect common to many schemes.

THIRD SCHEME.—This is an extremely interesting scheme, with the building shown at the north-west corner, and with the plan on asymmetrical lines. Access is by means of the road on the north side. The class-rooms are situated in a wing running along the contours, face south-east, and are at first-floor level. All the other teaching-rooms are under them and face the same direction. The rest of the accommodation is conveniently grouped round the hall and near the main entrances. The elevational treatment is particularly happy, and both the $\frac{1}{16}$-scale and $\frac{1}{8}$-scale drawings, like those of the winners', show knowledge and appreciation of stone technique.

CONCLUSIONS.—This competition has preeminently justified itself. It has invoked a "bumper" entry, and has produced a plan which, when it is carried out, will be a definite contribution to contemporary planning thought. On examining the sets of drawings, one fails to discover any of a violently modern type. A ramp here and there in place of stairs, "megaphone" halls, tapering corridors, and a few other features which are becoming recognised as part of the modernist's creed, are the main departures. Very few "stunts," as such, are discernible, which is all to the good.

The greatest satisfaction comes from the fact that the designs as a whole show such a high standard, and, particularly, such a release from the bonds which for so long have petrified school design. It is a matter for all-round congratulations.

THE ARCHITECTURAL ASSOCIATION

CHINESE ART.

THE Chinese Ambassador attended the meeting of the Architectural Association held on Monday, January 10, at 36, Bedford-square, W.C.1, when a lecture on Chinese art, illustrated by lantern slides, was delivered by Mr. Arnold Silcock, F.R.I.B.A

Before calling upon Mr. Silcock the President of the Association (Mr. L. H. Bucknell, F.R.I.B.A.) announced that two vacancies had occurred on the Council by the resignation of Mr. S. Rowland Pierce from the office of Hon. Librarian, and the resignation of Mr. R. H. Sheppard, an ordinary member of Council. The Council proposed to nominate: as Hon. Librarian, Mr. R. E. Enthoven, a member of the existing Council; as ordinary members, Messrs. S. E. T. Cusdin and W. R. F. Fisher. At the next ordinary general meeting, to be held on February 1, the Council would formally announce its nominations, as provided under by-law No. 42, and at that meeting it would be competent for any two members to nominate further candidates as follows:—(*a*) Hon. Librarian from the existing Council and two new ordinary members; or (*b*) Hon. Librarian not already serving on the Council and one new ordinary member.

The elections will take place at the following general meeting to be held on February 22.

The Lecture.

The lecturer said that before going to China he had been a student at the Architectural Association's school, and later had been on its Council. He hoped all present would go to the Exhibition now being held at No. 9, Conduit-street; it was a very fine and distinguished, although small collection, of Chinese art. It would be well to call attention to some events of Chinese history and show how these had affected well-known types of Chinese art. Professor Myers said that the most striking discoveries in Chinese art at about 3,000 B.C. belonged to Yang Shao, probably a cultured immigrant from the west: pottery of that period resembled similar work found in south-east Russia. This culture had died out, but by the third century B.C. the Chinese had developed the picture writing which had changed so little that the evolution of many written symbols used to-day could be traced back to those early times. Examples of that early picture writing were to be found inscribed on pieces of horn and bone—fragments of the archives of the early Chinese dynasties—and quantities of these had been deciphered, so that we now knew something of the customs of those early kingdoms. Chinese art by then was already highly stylised, and showed the imagination and vivid love of symbolism that had characterised it ever since. Fine hard kiln-baked pottery and bronze vessels used for sacrificial purposes were found. At that period bronze vessels were formed in imitation of earlier pottery ones, but by 1,000 B.C. the potters were striving to imitate older bronze forms. At this period some of the best-known symbolic monsters had been established in favour; in particular, the dragon had become as popular as it still remained. About 550 B.C. brought us to the time of Confucius, who had lived at about the same period as Buddha. Confucius had condemned the practice of immolation and had encouraged in its stead that of using models of retainers and animals for interment with the dead; owing to this fact we had been able to recover many forms of art.

The next great change had been brought about by the collapse of the feudal system, with the rise of the house of Ch'in, whose most celebrated representative was Shih Huang Ti. Shih Huang Ti was credited with building the great wall of China, but what he had actually done was to face an existing earthen rampart with brick and extend it. He had had an ambition to be known not only as the greatest of the Chinese Emperors, but as the first, and with this object in view had endeavoured to destroy all earlier artistic work. His dynasty had come to an end, being followed by the Han dynasty, under which there was a revival of learning, and the boundaries of the empire had been widely extended. Commerce had grown, silk being carried across the trade route to the western world. This had resulted in some contact with the Roman Empire, and Marcus Aurelius had sent an embassy to China. Roman glass had found its way into that country, being used for the purpose of studding the surface of bronze vessels—even real jewels were sometimes used in this way. The invention of green, brown and metallic glazes enabled pottery to imitate bronze vessels. The constant effort to improve pottery had resulted in the manufacture of hard stoneware, with which the Chinese had experimented until they got the production of true porcelain. Boldness, simplicity and a feeling for mass rather than preoccupation with detail had characterised the sculpture of that time.

A new breed of horses being introduced enabled the Chinese to abandon the chariot and defeat the horse-riding nations of the north. Buddhism was introduced into the country and recognised at the Court, slowly spreading to the masses. The Han period was followed by the T'Ung, in which the art showed the calm, contemplative and restful spirit of Buddhism. It reflected the peace, luxury and highly cultivated taste of the time. Its pottery was perfect in form and decorated with the most delicate monochrome glazes in pale sea-green, lavender, blue or ivory.

This period had been brought to an end by Kublai Khan and the Mongol conquest. Under the Ming dynasty which followed, there was another great artistic revival, with large forms and rich and varied colour. Paintings were broad and big in conception. Outstanding examples of the period's sculpture were the Ming tombs near Nanking, and the palaces and gates of Peking. In the 17th century had come the Manchus. Their rule had been beneficent, but with the 18th century had come the age of the traditionalist, and before the end of that century, in China as in the West, art had entered on its decline.

Discussion.

MR. PERCY J. WESTWOOD said the lecturer had lived in China, and his book on Chinese art had been selected by the First Edition Club as amongst the first 50 books here and in America. Mr. Silcock had blazed a trail, and he (the speaker) would like to add a few matters of detail. Chinese art had entered quietly and unobtrusively into this country, largely in the form of beautiful cups, china ornaments and porcelain of all kinds. There were still Chinese wallpapers in many of our old houses. There were Chinese fabrics and carpets almost poetical in design, and, in furniture, there was what was known until to-day as Chinese Chippendale. It was considered by authorities that a great deal of our love for Chinese art was due to the fact that it was based on Nature—on birds, animals and trees—and did not use landscape as a mere background for the human figure. The whole world acknowledged the paramount importance of Chinese ceramics; the exhibition at Burlington House some years ago had reinforced that opinion, and it was again being reinforced by the present exhibition. In China the artist and scholar were honoured above all.

MR. W. D. HICKLEY said that whatever conquerors had ruled in China, there had always been a distinctive Chinese note running through the nation's art.

The CHINESE AMBASSADOR said he was glad to have the opportunity of expressing his very hearty appreciation for being with the Architectural Association that evening. It had been a very pleasant evening. In the first place he felt a certain neighbourliness for architects, because directly opposite his embassy was the fine building of the Royal Institute of British Architects. There was also a certain amount of attraction to be among people whose profession was to create and build up rather than to pull down and destroy. Listening to Mr. Silcock's lecture, he had experienced a pardonable pride in hearing of the artistic achievements of his country throughout the ages and through all vicissitudes. He had also derived a certain confident reassurance as regards the future of his country. The achievements of peace, the monuments that were raised in civilised security, whether in China or in any other part of the world, outlasted and outlived the ravages of invasion and barbarous aggression.

MODERN BUILDING PRACTICE

I. THE ARCHITECT'S PART *

By T. P. BENNETT, F.R.I.B.A.

MODERN CONSTRUCTION.

BUILDING to-day has reached a stage at which concise thinking on every problem is necessary to an extent previously unknown.

Foundations.

Foundations require the first consideration. There is a choice of (1) plain concrete, (2) reinforced concrete, (3) rafts, (4) piles, with many fresh ramifications under each heading.

Probably the biggest, or, rather, most frequent, decisions are needed on the right relationship between mass concrete and reinforced concrete. In cheaper foundations a combination of mass concrete bases with reinforced concrete pedestals will frequently reduce the amount of steel required, on the one hand, and the cost of mass concrete bases on the other.

A solid foundation of this character has no risks when once completed. Pile foundations are frequently cheaper than either mass or reinforced concrete, but they have certain serious disabilities in respect of adjacent buildings or alterations to existing buildings, because they need compact, undisturbed earth if they are to remain stable. Particular attention should be given to the modern methods of driving piles which avoid the worst disabilities of vibration which exist when wooden piles are used or reinforced concrete precast piles are forced into position by dropping a monkey from a given height.

The Franki pile is typical in the newer type of pile-driving, where dry concrete is driven forward at the bottom of a tube, the tube following the pile into the ground, and ultimately being withdrawn slowly, while concrete is driven down it to form the shaft of the pile.

An extremely difficult and complicated foundation was provided in this way at the John Barnes building at Swiss Cottage, which is astride the L.N.E.R. main line tunnel, with provision for a tunnel extension parallel to the existing railway; 22 in. diameter concrete piles are used, each capable of carrying 100 tons.

Raft foundations are rarely economical, and must be considered only where disabilities make other types of foundation impossible.

Structure.

(1) The first consideration of construction lies in the clearly calculated choice of methods of carrying loads compared with ground-bearing strata, and there is now a much wider choice in the matter of detail than formerly.

(2) Broadly speaking, the structure of a permanent building can consist of (*a*) weight-carrying brickwork, (*b*) steel frame, (*c*) reinforced concrete. The relative merits of these types of construction vary with the type of building contemplated, and with the relative cost of brickwork, concrete, steel and labour at any given period.

The use of a steel frame for any building lower than about five storeys is very unlikely to be economical, and often buildings as high as 60 ft. or even 70 ft. may be more economical for weight-carrying brickwork than steel or reinforced concrete.

A few years ago a comparison of cost showed an addition of 1d. per foot cube on the whole building by using a steel frame. Two and a half years ago the advantages of steel, both in speed and cost, probably outweighed the use of reinforced concrete, but the rising cost of steel and the difficulty of obtaining supplies have in the last 18 months altered this relationship, and have made reinforced concrete more economical.

The invention of metal shuttering has increased the speed of building in reinforced concrete to a point which is extremely favourable, and the result in building is successful both as regards speed and cost.

One of the advantages of reinforced concrete building lies in the fact that the floors have weight-carrying capacities as soon as they are erected, and the finishing trades can start at an earlier period in the lower part of the building than is possible with the steel frames. Buildings erected on this principle make heavy demands upon the architect, and it will be found that a very much greater speed in the production of detailed drawings is necessary.

All building works, so far as structure is concerned, tend to-day to indicate the necessity for large staffs in architects' offices, so that the whole building may be fully studied and unaltered details supplied to the builder far in advance of the date by which they were once considered necessary.

In considering the structure, more recent engineering developments indicate the need for appreciating the value of rapid-setting cements and standard sizes of steel.

At no far distant date the protection of large buildings from the effect of bombs will probably be a *sine qua non*. The protection of buildings from direct hits by high-explosive bombs is, in the present stage of knowledge, not practicable.

Garages.

The next structural requirement of town buildings, which is becoming a matter of general, if not universal, practice, is the provision of garage spaces in basements. The garage is useless unless it has large unobstructed areas. Superstructure 100 ft. high provides a substantial load, and considerable thought in planning is needed to make sure that the main points of support of the superstructure can be adequately bridged at first-floor or some other floor level, so that these unobstructed basement areas can be obtained.

The garage is producing other planning problems. If ramp approaches are necessary, these take up considerable ground-floor space. The minimum width of 10 ft. is generally desirable, and a minimum slope of 1 in 7 is usually necessary. If the head-room is restricted to 8 ft. 3 in. and the construction (including pipes) limited to 2 ft. 6 in., the total floor-to-floor height of 10 ft. 9 in. will involve (at 1 in 7) a ramp of 75 ft. 3 in.

The turning space of cars is governed by the turning space of the largest car, which in England is 57 ft. 6 in.

These substantial dimensions are only economically obtainable in the largest buildings, and considerable adjustment and knowledge is needed to vary the desirable minimum slope or the desirable access by means of ramps. The alternative of lifts and turntables must be considered, and their disabilities fully realised if they are to be successfully incorporated.

The petrol station has become a common auxiliary to the garage, and to be successful must provide standing space for four cars and a frontage varying from 60 ft. to 80 ft.

The L.C.C. requirements with regard to petrol stations are onerous and drastic, and have far-reaching influence on road approaches, standing space for petrol lorries, and protection of the upper floors of the buildings from the possible effect of petrol fires.

The ventilation of basement garages and the provision of explosive areas are further complications of the problem, while the present use of thin glass constitutes a danger to the workmen erecting the garage and a constant expense to the owners.

Facing Materials.

Facing materials have increased very substantially in number, and have, therefore, extended the scope of the designer in the type of effect that can be produced.

Brick as a facing still remains one of the most widely used in England, where adverse climatic conditions affect many other types of facing.

The brickmakers have extended the range of colour, and most shades of grey, yellow, mauve and red are available. Alternatively, the range of artificial stone continues to extend and to be reasonably economical in cost compared with natural stone.

Natural stone is still a very valuable facing material, and can be used either in alternative courses—4½ in. and 9 in.—or in the form of 2-in slabs.

The alternatives to these accepted materials are: (1) glass; (2) terrazzo; (3) glazed faience; (4) cement-rendering for less important buildings.

Taking these materials in order:—

(1) Terrazzo provides an extremely effective facing, not abnormally expensive. It is important to ascertain that both the cementing material and the aggregate will stand the weather conditions of the industrial towns of England.

Some types of marble are very susceptible to the weather, and the surface will dissolve after a number of years' exposure.

The facing must be secured to the face of the building by means of copper ties or cramps, and the size of the block must be adjustable to something which can be readily made, easily handled, and does not need to be individually surfaced.

Glazed faience of various types can be used on lines which are similar to those of terrazzo, and glazed and matt surfaces are obtainable with equal facility

The matt surface faience slab makes a very effective building, and withstands the weather admirably, as does also the glazed terra-cotta slab. The latter can be used in thicknesses of 1½ in. applied to the face of the building.

The use of marble for facing buildings has been tried on only a few occasions in London, and in at least one instance the fixing with metal wire and plaster of Paris has proved to be inadequate to prevent slabs falling away from the face of the building. Detailed attention to fixing in such instances is necessary, and the method so far employed has not been universally successful.

Glass was used for the "Daily Express" building, but did not achieve general acceptance, partly possibly because of the conservative outlook of the average building owner and partly because of the risk attending such a revolution in exterior casing.

Cement-rendering still suffers from the effect of crazing, and few cement-rendered buildings are successful in appearance for more than a year or two after their erection. Cement-rendering, therefore, still remains a material to be used in economical buildings or for the less important elevations.

The fine appearance of coloured stucco on some Continental buildings is not possible in England owing to the less settled climate of this country.

Insulation.

Insulation from heat and sound is steadily demanding increased attention and knowledge. Both subjects are still in their infancy, and the effect of building movement is at present very hazily comprehended. Temperature movement in England is substantial, and is probably in action continuously, affecting the rigid substances which are used internally. The effect is shown in plastered ceilings, partition slabs, plastered walls and similar parts of the structure.

Building research physicists are devoting a good deal of time to this aspect of building, formulating rules for the general guidance of architects as the result of experiments on actual buildings. Flat roofs should be insulated with (*a*) cork, (*b*) compressed fibre boards, or (*c*) patent roofing materials.

Insulation of the heated portions of buildings like boiler-houses from the remainder of the structure is a necessity.

Insulation for sound is brought into prominence by consideration of the amount of moving mechanical parts which form part of the equipment of modern buildings. In this group of items are (1) lifts, (2) accelerator pumps, (3) oil burners, (4) electric fans (5) water running through pipes.

The solution starts with the plans and the

* This article commenced in our last issue. Ed.

design of the structure, and is too wide a subject to cover here. With regard to mechanised equipment, however, a few words may be added. The architect must refuse to fix or to accept motors or mechanical apparatus which are not designed to be silent. The insulation of buildings from water noises becomes yearly, if not daily, of increasing importance.

Many people are found to be amazingly susceptible to the really serious objection of the noise of running water, particularly in their living apartments. This objection is strongest in the case of w.c.s. The w.c. must therefore be isolated in planning. Its noises must be insulated with cork or rubber, and its wastes must be completely protected by sound-deadening materials.

Running water sounds are amongst the most difficult to insulate, and the distance at which the noise of water being pumped through the pipes is audible is often remarkable.

Rubber-insulated services of hot water mains are often desirable, but are still somewhat expensive and not altogether reliable.

Roofing.

Roofing materials have been the subject of a considerable amount of fresh investigation, strongly influenced by the development of the flat roof in modern design. The introduction of flat roofs proves the necessity of insulation, flat roofs without insulation having proved unsatisfactory.

The effect of heating a structure is sufficient to cause movement within 24 hours in the top storeys of steel-frame buildings, and it may crack the partitions and the plaster.

Flat roofs have led to the development of roof gardens. In the great majority of cases these gardens are spoilt by the soot in the London atmosphere, and colour must be called into play to combat this difficulty.

Flowers are usually best confined to boxes to avoid the weight of earth on the roof and extremely expensive costs in gardening.

Coloured pavements are possible in (*a*) asphalt, (*b*) stone, (*c*) bricks, (*d*) tiles, and the combination of these materials will often produce a very effective garden, without the cost of constantly replacing flowers.

Windows.

The desire for more daylight and sunlight in modern buildings has led to increasing attention being given to windows. The steel window has been widely used and in large buildings has brought to light certain defects. Steel is probably more susceptible to paint defects than wood, and steel frames, if improperly painted, readily rust. The provision of hinges on some of the cheaper types of casements is unsatisfactory, and riveting in some sections offered by the manufacturers gives improper hold to the rivets. On the other hand, the best class of steel casement provides the maximum amount of daylight with minimum of obstruction, and the lines of the windows can conform with the modern architect's ideas of design.

A lower series of panes of glass can be fixed with advantage and have become one of the standard types of casement window. This fixed lower pane is a feature of considerable advantage in offices and in types of buildings where children are likely to be present.

The steel sash built directly into the brickwork is extremely difficult to make watertight, and in the best practice is not used without a wooden surround frame, which provides a more satisfactory junction between iron and wood and wood and brick than that which can be obtained between iron and brick.

Staircases.

Staircases are slowly being relegated to positions of secondary importance in high buildings, with the possible exception of the portion of the stairs rising from ground to first floor. Pre-cast or *in situ* concrete is becoming the material of universal employment, cased with a variety of materials, of which the three principal are: (1) Hardwood, (2) terrazzo, (3) marble.

Engineering Services.

The engineering services of buildings are necessarily involving an increasing amount of study.

Heating.

Heating has a variety of possibilities, the fuel may be: (a) Anthracite, (b) coke, (c) soft coal—high grade, (d) soft coal—low grade, (e) oil, (f) gas, (g) electricity.

The considerations covering the use of these alternatives in fuel are very extensive, and it is practically impossible in a short article even to give the barest outline of the principles which will govern selection.

As some slight indication of the way in which these points should be considered, it may be said that the tax on oil has made the running of heating plant by oil approximately twice the cost of that of solid fuel. The use of gas is about 5 per cent. dearer than oil. The use of electricity varies greatly in different parts of England, according to the price per unit. At .2d a unit electricity is probably about equal to the cost of gas.

The oil tax has been of considerable benefit to the coal industry, and as it is one of the considerable industries of this country, it might be assumed that oil tax may increase rather than decrease. Oil, therefore, has become relegated to those positions in buildings where absence of labour, absence of a large boiler flue, or other considerations justify the possible expenditure of an excessive amount per annum on running cost.

The cost of gas will necessarily vary in price with the price of coal, and to that extent is dependent on the price of solid fuel.

Solid fuel still remains the most important fuel for large heating installations, and in such cases the choice is between coke, anthracite and coal, but much depends on the position and size of the plant, and other details.

Boilers.

The type of boiler has also been the cause of very extensive consideration. It is possible to have: (a) Tubular boilers, (b) sectional boilers, (c) mechanical stokers, (d) gravity-fed plant. The choice in each case is dependent on the size of the installation, type of fuel, and other considerations.

Heating Units.

The heating unit may be in the form of: (a) Radiators, (b) ray-rads, (c) ceiling coils, and in each case will be dealt with partly on the question of cost, partly on the question of decoration, and partly on the question of economy. The economy of panel heating is well known, but the cost of installation is higher than that of radiators.

The provision of pumps on extensive systems is more or less a necessity, as few large systems will work successfully on gravity. Hot water should be too hot for comfortable use, necessitating the mixture of cold water.

Electricity.

Electricity in buildings is steadily increasing in use for (a) lighting, (b) power, and (c) subsidiary equipment arising out of these two main categories of use.

In the great majority of buildings the most important general consideration is provision for the electric point in a place to be decided by the tenant, or user of the building, even after occupation has taken place, and this extension of the electric point should be an important consideration in laying out the general scheme.

The charges for current, which will vary according to the completeness of the electrical installation, are also matters of substantial importance.

Gas.

The activities of the gas companies in recent years have shown their substantial enterprise, and have developed the efficiency of gas to a point thought impossible a few years ago.

Air-Conditioning.

Air-conditioning is a much-abused phrase, very rarely meaning what it sets out to mean. At the same time, air-conditioning in some form will no doubt be a standard equipment of the best type of building of the future, and its ramifications must be mastered by the architect if he is to give sound advice on this matter.

(This Series is to be continued.)

R. I. B. A.

INTERMEDIATE EXAMINATION.

Of the 169 candidates examined in the R.I.B.A. Intermediate Examination held in November 68 passed and 101 were relegated. The successful candidates are as follows:—

A. F. Almrott.
J. R. Armstrong.
T. Armstrong, jun.
E. V. Barber.
F. E. Bingham.
Hon. L. G. B. Brett.
J. Brown, jun.
F. A. Brudenell.
W. S. Bryant.
E. G Chandler.
R. T. Chappelle.
R. J. B. Christie.
A. B. Cock.
J. H. Cox.
K. Dodds.
E. J. Edwards.
P. C. Edwards.
R. Empsall.
C. R. Evers.
J. R. Forth.
J. C. M. Hames.
A F. J. Hannaford.
L. K. Harper.
P. H. Hartley.
L. A. J. Heywood.
E. P. Hill.
E. Hitchon.
G. F. Holden.
A. J. Hooker.
L. Howarth.
C. E. Jacob.
E. R Janes.
J. P. Johnson.
H. Jones.
J. M. Kidall.
K. W. Lawton.
L. Longbottom.
G. R. Lovell.
D. A. Macdonald.
D. W. Mackereth.
W. E. Mayer.
D. G. Mills.
A. S. Mustapha (not a British subject).
R. Otterburn.
R. Page.
A. L. Parsons.
W. A. Pegrum.
G. R. Price.
J. Routh.
L. H Ruddick.
G. L. Sartain.
J. D. Scholes.
C. F. Scott.
P. Scott.
I. A. Stark.
E. T. Thomas.
E. H. Thompson.
Miss M. Thompson.
W. R. Thornton.
N. G. E. Turner.
S. Vere.
W. Wallis.
R W. Warner.
S. Wells.
F. L. Willars.
C. A. Wood.
E. S. Wright.
K. M. Young.

Membership.

At a Council meeting of the R.I.B.A., held on Monday, January 10, the following members were elected:—

As Fellows:

A. C. Cowtan (London).
S. J. B. Stanton (London).
F. J. Taylor (Plymouth).
Capt. A. S. Ash (London).
J. R. Hill (London).
H. F. Hurcombe (Oxford).
P. A. W. Roffey (London).
M. Rosenauer (London).

As Associates.

S. F. Ashby (Bartlett Sch. of Arch., Univ. of London) (London).
S. Blank (Manchester).
N. E. Block, B.A.Arch. (Bartlett Sch. of Arch., Univ. of London) (London).
S. W. Bradshaw (Orpington, Kent).
V. Bulbulian (Bartlett Sch. of Arch., Univ. of London) (London).
A. B. Bunch (Birm. Sch. of Arch.) (Leamington Spa).
Mrs. H. Cowell (Sch. of Arch., Victoria Univ., Manchester) (Birmingham).
E. H. Crosbee, Dip.Arch. (Edin.) (Sch. of Arch., Edin. Coll. of Art).
R. N. Dixon (Birm. Sch. of Arch.) (Birm.).
R. P. S. Eve (A.A.)(Cheam, Surrey).
D. C. Gill (Sch. of Arch., Mun. Sch. of Arts and Crafts, Southend-on-Sea and the A.A.) (Stanford-le-Hope, Essex).
G. Gneditch, B.A.Arch. (Sch. of Arch., Univ. of Camb. and the Bartlett Sch. of Arch., Univ. of London) (London).
R. W. Gray (London).
D. A. Green (Birm. Sch. of Arch. and the A.A.) (Leamington Spa).
J. Innes, Dip.Arch.(Edin.) (Sch. of Arch., Edin. Coll. Art) (Edin.).
P. H. Laurence, A.A.Dip. (A.A.) (Wrecclesham, Surrey).
Miss M. J. S. Love (Glasgow Sch. of Arch.) (Glasgow).
D. G. Madge (Enfield, Middlesex).
J. S. Neish (Sch. of Arch., Dundee Tech. Coll. and Sch. of Art and the A.A.) (London).
R. H. Pastakia (London).
W. A. B. Robertson (Sch. of Arch., Edin. Coll. of Art) (Edin.).
J. S. Scott (Birm. Sch. of Arch. and the A. A.) (Barnt Green, Worcestershire).
Miss E. F. Sides (Sch. of Arch., Univ. Coll., Dublin and the A.A.) (London).
D. S. Soutar (A.A.) (Dundee).
F. R. Stevenson (Sch. of Arch., Edin. Coll. of Art) (Edin.).
J. Y. T. Stoneham (Bartlett Sch. of Arch., Univ. of London) (London).
C. V. Tillett (Sch. of Arch., Univ. of Camb. and the A.A.) (London).
Miss D. P. Tranmer (A.A.) (Harrogate, Yorks).
A. J. Truscott (Bartlett Ach. of Arch., Univ. of London) (London.)
W. T. C. Walker (Sch. of Arch., Edin. Coll. of Art) (Rome).
K. Warman (Leeds Sch. of Arch.) (Bradford).
P. Whiston, Dip. Arch. (Edin.) (Sch. of Arch., Edin. Coll. of Art) (Edin.).
A. H. Williams (Sch. of Arch., Victoria Univ., Manchester) (Northallerton).
Miss A. C. Woodrow (Glasgow Sch. of Arch.) (Glasgow).
W. J. Wynn (Banstead, Surrey).

As Licentiates:

T. Burd (London).
A. F. E. Gott, B.A. Hons. (Oxon.) (London).
H. MacPherson (Glasgow).
V. Simmonds (Birmingham).

Glasshouse Competition.

The first three premiated designs submitted in the "Daily Mail" Ideal Home Exhibition Glasshouse Competition, with a selection of about 40 sets of other competitors' drawings, is now on exhibition at the Building Centre, 158, New Bond-street, W.1, until January 29.

THE POWERS OF THE QUANTITY SURVEYOR—II

By W. T. CRESWELL, K.C., Assisted by NORMAN P. GREIG, B.A., Barrister-at-Law.

A CONTRACT of agency is brought about by an express or implied agreement between the principal and agent, or it may be created by ratification by the principal of the agent's acts done on his behalf. An implied agency may be set up by conduct or from necessity. No one, however, can, under any circumstances, become the agent of another person except by the will of that person (see Pole *v.* Leask (1863), 33 L.J. (Ch.) 155). Confidence in the particular person employed is the root of the contract of agency, though the word "agent" is often used slackly and wrongly in circumstances which do not give rise to the legal obligations which attach to agency.

Engagement by Architect or Engineer.

More often than not, a quantity surveyor is instructed to prepare bills of quantities by the architect or engineer of the employer. The authority of such architect or engineer is either expressed or implied. When it is not expressed, he may rely on an authority implied by an authorisation to obtain tenders, when to do so would obviously be impracticable without bills of quantities. Such an authority is implied when it can be shown that the employer knew that bills of quantities were being prepared and used for tendering, and when he had actively or tacitly acquiesced in their use, or had ratified the order given by his architect or engineer to the quantity surveyor. Moreover, an implied authority is often founded on usage and custom, and in this connection much depends on the kind of work to be done. Generally it appears that there is a usage or custom that quantities should be prepared for works calculated to cost £2,000 (or thereabouts) and over.

It should be clearly understood that the express or implied authority of the architect or engineer is limited to his employment of a quantity surveyor for the purposes of preparing bills of quantities for such work as is comprised in the terms of his own employment or within the scope of his authority.

Such authority, for instance, does not entitle the architect or engineer to employ a quantity surveyor for the purpose of reducing tenders in excess of his approximate estimate, consequent on his having prepared designs, etc., for works entailing far more cost than was comprised in, or would have resulted from, complying with the employer's instructions. But there is no doubt that by usage or custom, an architect or engineer may employ a quantity surveyor to measure up variations from the contract works if such variations involve large and extensive measurements, or, in large contracts, are required for the purpose of arriving at the amount of interim certificates; also in all cases where the quantity surveyor's services are obviously necessary and will prove of benefit to the employer. The architect or engineer should, however, obtain the authority of his employer, especially if there is any dispute as to the interim or final certificate. Clause 10 of the 1931 Form of Building Contract, provides, for instance, that all extras, omissions and variations authorised by the architect are to be measured by the surveyor, who is to give to the contractor an opportunity of being present with him on the works at the time, and to take any notes and measurements that he may require. The contractor must be supplied with a copy of the measured bill on or before the date of the architect's certificate in respect of such extras and omissions, and the valuation of them, unless previously or otherwise agreed, is to be made subject to rules provided by the clause. Briefly, these state (a) that the prices in the original bills of quantities are to determine the valuation of extra work, similar in character and similarly executed under similar conditions; (b) that where the extra works are not similar, the prices in the original bills of quantities are to apply as a basis as far as reasonable, otherwise a fair valuation is to be made based upon local prices for similar work; (c) that where the extra work cannot properly be measured or valued, the contractor is to be allowed day-work prices at the rate stated in the bills of quantities. If none, they are to be calculated in accordance with the local day-work Schedule of the Building Employers' Association; and (d) that the prices in the original bills of quantities are to determine the valuation of items omitted, etc. The clause further provides that the measurements and valuation, as above, must be completed within the "period of final measurements" stated in the appendix or, if not stated, within three months of completion of the works. Interim measurements and valuations are to be made whenever necessary to enable the architect to issue certificates (under Clause 25 of the Form of Contract).

Engagement by Contractor.

Sometimes the contractor himself engages a quantity surveyor for the purposes of measuring up variations, etc., and preparing what he thinks he is entitled to in interim certificates and in his final account. In the previous article we dealt with the question of contracts with limited companies. It would perhaps be appropriate here to allude to contracts made with a firm or partnership. In a word, unless their authority is limited by agreement, partners are the agents of each other, and hence, apart from express agreements to the contrary, one partner can bind his fellow-partners and the firm.

Engagement by Employer Direct.

It is becoming customary for quantity surveyors to be engaged directly by the employer, especially in large building and engineering contracts for Government, local authorities and companies. This practice is to be commended and, in our view, adds to the prestige of the quantity surveyor's profession.

INQUIRY BUREAU

QUESTIONS.

Removal of Varnish.

SIR,—I should be obliged if you would inform me of the correct procedure for removing varnish from a floor. I originally water-stained the wooden surround in one of my rooms, and varnished over it; I now wish to remove the varnish, and stain the floor again, but after trying several ways I was not wholly successful. I have tried scrubbing the floor with strong soda-water and rubbing it with sandpaper and a steel wire-haired brush, but with no real success.

W. V. W.

Tanking a Basement.

SIR,—Could one of your correspondents give a ruling on materials to be used for tanking a basement, and whether any firm of builders would give a reasonable guarantee?

I am a clerk of works, and where I am employed "liquid" rock is being used, poured into a cavity as work proceeds between two 4½-in. skins of brickwork. The brickwork has to be built up three courses before the liquid rock is poured into the cavity; therefore one must be working blind.

I have never known this class of waterproofing to a basement to stand water pressure, but I have been told that it can be made an absolute success.

I should be grateful if any of your readers could mention a basement, at home or abroad, where this has been successful, and where the firm supplying materials for same have guaranteed it for any length of time.

CLERK OF WORKS.

ANSWERS.

Town Planning Question.

[ANSWERS TO "PLANNING," JANUARY 14.]

SIR,—The planning authority would adopt zoning as a "special area" when land is zoned, for instance, as for docks, cemetery, isolation hospital, or the like. LEX.

SIR,—The zoning of a district as a "Special Area" would reserve to the Planning Authority to treat each application for a development order on its individual merits without committing the area to the limitations of a single category, such ae "residential," "business premises," etc. This would be applied probably to streets of architectural interest where the establishment of a shop, for example, would not necessarily injure those amenities if treated with special regard to the surroundings.

PLANNER.

Tile and Concrete.

[ANSWERS TO "CONSTRUCTION," JANUARY 14.]

SIR,—It would be the safer plan to cover the balcony with kraft paper, then ¼ in. of asphalt, and finally a coat of bituminous mastic, then repeat again. Put at least a 2½-in. bed under the quarry tile and set the tiles in this bed. G. W. H.

SIR,—The surface on which the tiles are laid should have a top rendering composed of one part Portland cement and two parts washed sand. Tiles can safely be laid if this mixture is used directly under the tiles.

W. E. W.

Condensation in Hall.

[ANSWERS TO "A. W. M.," JANUARY 14.]

SIR,—The trouble may be due to a defective air circulation, with the result that the heat is concentrated round the radiators instead of being diffused through the air. Radiators combat condensation by causing air circulation, as hot air always rises. For radiators to be effective there must be an exit for the air from the room and an entry for fresh air. An air ventilator at approximately the floor level, just behind the radiators, should give an improvement. Possibly the plaster work on the walls is hard and non-absorbent; such walls are always likely to give condensation troubles. Lime plaster being more absorbent is less liable to give trouble. Replastering the walls with a more porous plaster should give an improvement, and, together with better ventilation, effect a cure. W. E. W.

SIR,—The ventilating system is evidently not functioning with efficiency, and it is somewhat difficult to suggest remedies without viewing the building. It would be prudent to consult a specialist in ventilation rather than experiment in the dark. At the same time, a rough wall surface, while not eliminating condensation, would do much to reduce the inconveniences, which are at their worst when a smooth cold surface exists.

CONDENSATION.

[Will "A. W. M.," whose inquiry appeared in our issue of January 14, kindly forward his name and address to the Editor?]

Plans and Specifications.

[ANSWERS TO "CONTRACT," JANUARY 14.]

SIR,—In a measure the specification was a definite description of what should be done to carry out the work shown on the drawings. A builder could not be expected to know what the nature of the cupboards were if they were not described in any way. Then again, the charge for the cupboards must be an extra on the written description or verbal order of the client or his architect, because they were omitted in the specification. G. W. H.

SIR,—The fact that the cupboards were shown on the plans clearly indicates that they were part of, and contemplated by, the contract, and are indispensably necessary works to complete it. They cannot therefore be charged as "extras." It is only when bills of quantities form part of a contract that, if anything is done over and beyond the quantities, a claim for "extras" can be rightly claimed. LEX.

SIR,—The contract documents presumably comprise the agreement, the plan, or plans, and the specification, no part of which may be ignored. If a cupboard is shown, some provision should be made for it, though nothing but the simplest form of cupboard could be claimed in the absence of a detailed specification.

ADMINISTRATION.

NOTES ON ESTIMATING FOR BUILDERS' WORK—III.

By J. H. BARNS, F.I.O.B.

BRICKWORK.

A STANDARD rod of brickwork is assumed to be 16 ft. 6 in. long by 16 ft. 6 in. high and 1½ bricks thick, equalling 272 ft. 3 in. super. In such a wall there will be 66 bricks per course and 66 courses high, totalling 4,356 bricks of London size. For simplicity of working 4½ thousand bricks may be taken. It is customary not to make any allowance for wasted bricks.

The quantity of mortar required varies with the thickness of the wall and the size of the joint. Speaking generally, 3 yards of sand would be sufficient.

The labour is calculated—bricklayer and labourer laying 600 bricks per day of 8 hours—at 1s. 8½d. and 1s. 3½d. per hour respectively. The number of bricks which can fairly be laid in a day varies from 100 to 1,200, according to the class of work and quality of materials. Supervision and organisation count for a great deal. A bricklayer with few bricks handy and a frequently empty spot board will hardly break records. The brickwork at the lower storeys of buildings will cost less than at the top, as the walls are usually thicker at the bottom and brickwork at the top of a building requires considerable labour for hoisting materials. Long straight walls cost less for labour than walls with piers or openings, as the plumbing to angles takes comparatively a long time, and is not specially measured.

The scaffold is a very difficult item to analyse, as the amount paid to scaffolders on the job is not necessarily an indication of the cost of scaffolding, as these men do all sorts of work on the job which is not strictly scaffolding. The lower portion of the wall will require very little scaffolding, the upper part needing most of all. Each item in the building should have a percentage added for scaffolding, as all the trades share its advantages. Some firms adopt the method of adding 1½ per cent. upon the estimated cost of the building for the general scaffolding. It is frequently an advantage to use steel tubular scaffolding, which costs about 25s. to 30s. per square for hire (for a reasonable time) of scaffolding for simple structures, including for labour required in erecting and striking scaffolding.

Brickwork in cement costs for labour about 5 per cent. more than brickwork in lime mortar, as the lime mortar is fatter and works more freely, and cement mortar is short and is not easily retained on the trowel.

Stock bricks would take a little longer than Flettons to lay, but frequently no difference is made in estimates on account of this slight difference in labour, but any difference in cost of materials should be added.

— rods super reduced Fletton brickwork in cement mortar mixed in the proportion of three parts of sand to one of cement, including all rough cuttings.

Example :—

	£	s.	d.
4,356 Flettons delivered, say 4½ thousands at 55s. per 1,000 ...	11	18	4
3 yards cube sharp sand at 9s. per yard cube	1	7	0
1 1-20 tons Portland cement at 45s. per ton, including bags	2	7	3
Labour (bricklayer and labourer) say	9	0	0
Scaffolding ... ... say	1	0	0
	25	12	7
Add for on-costs and profit, say 15 per cent.	3	16	11
Price per rod	£29	9	6

— rods super reduced stock brickwork in cement mortar as before described.

Example :—

	£	s.	d.
4,356 stocks (say seconds) delivered, say 4½ thousands at 90s. per 1,000	19	10	0
3 yards cube sharp sand at 9s. per yard cube	1	7	0
1 1-20 tons Portland cement at 45s. per ton, including bags	2	7	3
Labour (bricklayer and labourer) say	9	0	0
Scaffolding ... ... say	1	0	0
	33	4	3
Add for on-costs and profit, say 15 per cent.	4	19	7
Price per rod	£38	3	10

— rods super reduced Blue Staffordshire brickwork in cement mortar, mixed as before.

Example :—

	£	s.	d.
4,356 Blue Staffordshire bricks delivered, say 4½ thousands at 170s. per 1,000	36	16	8
3 yards cube sand at 9s. per yard cube	1	7	0
1 1-20 tons Portland cement at 45s. per ton, including bags	2	7	3
Labour (bricklayer and labourer), say	14	17	0
Scaffolding ... ... say	1	0	0
	56	7	11
Add on-costs 5 per cent. and profit 10 per cent. = 15 per cent. ...	8	9	2
Price per rod	£64	17	1

This is calculated on the basis of a man laying 350 Blue Staffordshire bricks per day of 8 hours. Blue bricks cost more to lay because they are heavier, less absorbent, and "swim" in the mortar.

Brickwork in Backing to Masonry.

This will entail about 5 to 15 per cent. additional for labour over the cost of ordinary bulk brickwork, which is caused by the rough cutting to bricks at back of masonry and the work being usually in smaller pieces.

Brickwork in Underpinning.

Brickwork when built as underpinning will cost much more than ordinary brickwork, because it is usually executed in small quantities, in confined spaces which may be difficult of access, and the ends of the brickwork when built are usually left toothed up so that the next section when built may be bonded to it. The work is usually performed at intermittent periods.

It will cost 25 to 100 per cent. more than ordinary brickwork for labour in underpinning work. The materials required could probably be priced at the general rates for such work as included in estimate.

Facings and Pointing.

The assumption is that the brickwork has been measured in common bricks and that a superior brick will be used as facing. The extra cost of facing would depend upon the bond to which the brickwork is laid. English bond would take about eight bricks per ft. super; Flemish bond about seven bricks per ft. super; Norfolk bond about six bricks per ft. super.

Example:—

— ft. super. Extra to facing with multi-coloured facings (p.c. 125s. per 1,000) and pointing in cement :—

	s.	d.
Facing bricks ... per 1,000	125	0
Fletton bricks ... ,, ,,	55	0
Difference	70	0

Extra cost of facings = 7d. per ft. super.

This can be arrived at, roughly, by stating that £1 per 1,000 is ¼d. per brick. ∴ 70s. per 1,000 would be ¼d. per brick :—

English bond—8 at ¼d. = 7d. per ft. super.

Flemish bond—7 at ⅛d. = 6d. per ft. super.

Norfolk bond—6 at ⅛d. = 5¼d. per ft. super.

Other prices can be worked on similar lines, which are sufficiently nearly accurate for ordinary purposes. To this must be added the cost of pointing, probably 1½d. per ft. super. Another method of arriving at the price of eight bricks is to take the 20s., divide by 10 and call the result pence. This will be suitable for English bond, but not for Flemish or Norfolk bond. The present price of multi-coloured facings is about 125s. per 1,000 delivered.

Example:—

— ft super. Extra over Fletton brickwork for facing with Blue Pressed Staffordshire facing bricks and pointing in cement :

	s.	d.
Blue pressed Staffordshire bricks, per 1,000	170	0
Fletton bricks ... ,, ,,	55	0
Difference ... ,, ,,	115	0
Extra cost of facings in English bond = 11½d. per ft. super.		
Number of Flettons laid per day ...		600
Number of Blues laid per day ...		350
Difference		250
Additional cost of labour per rod	£5	17	0
	s.	d.	
= additional cost per ft. super reduced to 1½ brick thick, say ...	0	5¼	
= cost per ft. super ⅔ brick average for facing, say	0	2⅝	

Summary:—

Additional cost, bricks per ft. super	0	11½
Additional labour per ft. super, say	0	2⅝
Pointing ... ... say	0	1¾
	1	4
Add profit, etc., 15 per cent. say	0	2½
	1	6½

— ft. super. Extra only to facings with best white glazed bricks and pointing in cement (a bricklayer will lay about 300 white glazed bricks per day) :—

White glazed bricks, average cost per 1,000 ... ... say	495	0
Deduct cost of Flettons, per 1,000 say	55	0
Difference	440	0
Cost of eight bricks ... say	3	8
Extra labour, as before ... say	0	4
Pointing ... ... say	0	1⅝
	4	1⅝
Add profit, etc., 15 per cent., say	0	7½
	4	9

— ft. run. Extra to Flettons bull-nosed angle :—

Example:—

Cost Fletton bull-nosed bricks, delivered, per 1,000	70	0
Deduct Flettons (ordinary) per 1,000	55	0
Difference per 1,000	15	0
Cost of eight bricks	0	1½
Cost of four bricks	0	0⅜
Extra labour	0	0⅜
Total per ft. run	0	1½
Add on—costs and profit, 15 per cent. ... ... say	0	0¼
	0	1¾

If worked out on these or similar lines, other items in the bill could be dealt with.

— ft. super half-brick wall in Fletton bricks (as before described) :—

Example:—

	s.	d.
1 ft. super half-brick wall arrived at from the cost of rod of Fletton brickwork given previously ...	0	7½
Add for additional cost of labour, at least 25 per cent. over bulk brickwork ... ... say	0	1
Price per ft. super ... ... say	0	8½
Add on-costs and profits, 15 per cent. say	0	1½
	0	10

— yards super. 3-in. Cranham (type) terra-cotta partition blocks and setting in cement mortar, including all straight cuttings :—

	s.	d.
1 yard 3-in. Cranham (type) partition blocks, delivered	3	0
Waste, 2½ per cent.	0	1
Cement mortar ... ... say	0	8
Labour (1s. 6d. to 2s.)	2	0
	5	9
Add on—costs and profit, 15 per cent. ... ... say	0	10½
	6	7½

Should any scaffolding be required for this work, the cost should be added.

Cutting chase and bonding to existing walls and ceilings would be worth about 6d. per ft. run.

NEW BUILDINGS IN LONDON

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

ALPERTON. — FACTORY. — A 3-storey factory is to be erected for Messrs. Bengué and Co., Ltd., of 24, Fitzroy-street, W.1, at Mount Pleasant. Messrs. G. A. Sexton and Son, 42, Kilburn High-road, N.W.6, are the architects, and the building contract has been entrusted with Messrs. W. J. Marston and Son, 87, Wandsworth Bridge-road, S.W.6.

BETHNAL GREEN.—REBUILDING.—Messrs. Stewart and Hendry, FF.R.I.B.A., 90, Fenchurch-street, E.C.2, are the architects for the rebuilding of the "Old Horns" beer house, 68-70, Warner-place. No contracts placed.

BETHNAL GREEN.—REBUILDING.—Mr. R. S. Bowers, F.R.I.B.A., 104, High Holborn, W.C.1, is the architect for the rebuilding of 143-145, Brick-lane. No contracts placed.

BOUVERIE-STREET. — EXTENSION. — The proprietors of the *News Chronicle* newspaper have acquired a large island site in Bouverie-street, Tudor-street and Temple-lane, for the erection of a block of printing and publishing offices. Plans are by Messrs. Percy Tubbs, Son and Duncan, 16, Harpur-street, W.C.1, and a building contract has been placed with Messrs. Harry Neal, Ltd., 117, Baker-street, W.1.

BROCKLEY.—SHOPS.—Messrs. Brine and Armitage are the architects for a block of four one-storey lock-up shops on the site at the corner of Honor Oak Park and Grierson-road, Brockley.

CAMBERWELL.—OFFICE. — The Maxwell Laundry, Ltd., 66, Peckham-grove, S.E.15, have had plans approved by the B.C. for a new office building in Sedgmoor-place.

CAMBERWELL.—PREMISES. — Plans have been approved for erection of buildings on site of 57-65, Grove-lane. Messrs. J. Pusser and Co., 396, Old Kent-road, S.E.1, submitted the application to the Council.

CLERKENWELL. — EXTENSIONS. — And alterations are to be made to the Sadler's Wells Theatre, Rosebery-avenue, E.C.1, for the Old Vic-Sadler's Wells Trustees. The contract has been placed with Messrs. F. G. Minter, Ltd., Ferry-works, Putney, S.W.15. The architects are Messrs. Stanley Hall, Easton and Robertson, FF.R.I.B.A., 54, Bedford-square, W.C.1.

CLEVELAND-STREET. — SHOPS. — And flats, to be called Fitzroy Court, are to be erected at the corner of Cleveland-street, Grafton-street, and Fitzroy-mews, W.1. The contract has been placed with Messrs. Wood Bros., Vale-road, Hackney, E.7. The plans have been prepared by Messrs. J. W. Codrington and Son, 488-490, Kingsland-road, Dalston, E.8.

EALING. — SCHOOLS. — The B. of E. have approved additional accommodation at the Coston Senior Girls' School, and working drawings are now to be prepared. The architect is Mr. F. J. Forty, B.Sc., Town Hall. The E.C. has also accepted the tender of Messrs. Evan Thomas and Sons, 115, Boston-road, Hanwell, W.7, at £25,549, for a new infants' block at Wood End school. Plans have been prepared under the direction of the Borough Surveyor, Mr. F. J. Forty.

EAST DULWICH.—DRILL HALL. — The County of London Territorial Army and Air Force Association, Duke of York's Headquarters, King-street, S.W.3, has acquired a site in Lordship-lane, S.E., for a drill hall and anti-aircraft depot. The contract has been placed with Messrs. L. and W. Whitehead, Ltd., 169, Clapham-road, Stockwell, S.W. The architect is Mr. John O. B. Hitch, A.R.I.B.A., Furnival House, High Holborn, W.C.1.

EDGWARE. — CHURCH. — The Edgware Congregational Union have decided to build a new church, etc., in Manor Park-crescent. Plans have been prepared by Mr. John P. Blake, F.R.I.B.A., 24, Bath-road, Hounslow. No contracts let.

EDMONTON. — FACTORY. — Plans have been prepared for a factory and stores in Leopold-road. The architects are Messrs. Fuller, Hall and Foulsham, 212, High Holborn, W.C.1.

INDUSTRIAL PAVEMENT PROBLEMS SOLVED BY QUARZITE

PRICE NOW COMPETITIVE

JOHN STUBBS MARBLE & QUARZITE LTD

ENFIELD.—HOUSES. — Plans have been prepared by Messrs. W. Goodchild and Son Co., 85, South-street, Romford, surveyors, for 60 houses in Beverley-road.

ENFIELD. — LIBRARY. — The T.C. has accepted the tender of Mr. Albert Monk, Lower Edmonton, N.9, at £5,390, for the extension of the branch library in Enfield Highway. Plans have been prepared by Mr. Frank Lee, L.R.I.B.A., 7, Little Park-gardens, Enfield.

ESSEX.—BUILDING.—The C.C. are inviting tenders for additions to and reconstruction of existing buildings, formerly known as the Convent of the Good Shepherd, Hermon-hill, Wanstead, and alterations and additions at Dagenham, Arnold-road Council School.

FLEET-STREET.—BRANCH.—Messrs. Boots Cash Chemists have acquired premises for reconstruction and adaptation as branch premises. The plans are being prepared by the company's chief architect, Mr. Percy J. Bartlett, F.R.I.B.A., Nottingham, and a contract has been placed with Messrs. James Jennings & Son, Ltd., 42-44, Leman-street, E.1

HAMPSTEAD.—HOUSES.—Messrs. Jaretzki and Bramwell, 30, Cavendish-square, W.1, are the architects for houses at the corner of Netherhall-gardens and Maresfield-gardens. The builders are the South Eastern Contractors, Ltd., 91, Rosendale-road, Dulwich, S.E.21.

HERTFORD.—ADDITIONS.—The T.C. has approved plans for additions to the administration block, new ward block, new cubicle block and two staff cottages at the Isolation Hospital in Stanstead-road. Messrs. Tooley and Foster, Midland Bank Chambers, Queen's-road, Buckhurst Hill, are the architects. No contracts placed.

ILFORD.—FLATS.—Plans have been prepared by Messrs. White and Mileson, 174c, High-road, Loughton, for a block of flats in York-road. No contracts placed.

KENSINGTON. — MODERNISATION. — The L.M.S. and Great Western Railways are to spend approximately £35,000 on an extensive modernisation and improvement scheme for Kensington (Addison-road) station. The projected improvements will benefit passengers using the station, and make for a more rapid handling of the very large parcels traffic. The station buildings are to be reconstructed on modern lines, and additional and extended awnings will be provided over the platforms.

KENSINGTON HIGH-STREET.—BRANCH.—A section of the ground floor at Stafford-court has been acquired by Messrs. Montague Burton Estates, Ltd., for conversion into branch showrooms and offices. Plans have been prepared by the company's architect, Mr. Nathaniel Martin, L.R.I.B.A., Hudson-road Mills, Leeds.

KENSINGTON HIGH-STREET.—REBUILDING.—Demolition work is in progress upon the central portion of the large departmental stores of Messrs. John Barker and Co., Ltd., preparatory to the rebuilding of further section of their premises. The plans have been prepared by the company's chief architect, Mr. Bernard George, F.R.I.B.A.

KEW.—SCHOOL.—A new junior mixed and infants' school is to be erected in Brooks-lane, Strand-on-the-Green, W.4. The demolition work is by Messrs. A. Shaw and Sons, 344, Staines-road, Hounslow, and the builders for the new school are Messrs. Speirs, Ltd., 66, Victoria-street, S.W.1.

LEYTON.—EXTENSIONS.—No contracts yet placed for extension to the garages at Forest Court, Snaresbrook-road. Messrs. M. E. and O. H. Collins, 115, Old Broad-street, E.C.2, are the architects.

LONDON.—STATIONS.—The L.P.T.B. are to rebuild Harrow-on-the-Hill Station to take six tracks. Baker-street Station will be largely rebuilt. The Metropolitan and Tube Stations will have one large booking-hall. Tube passengers will be carried from street to platform on two flights of escalators. The lower flight will be used by passengers transferring between Metropolitan and Tube

trains. At Oxford Circus two large high-speed lifts, each having a capacity of 50 people and travelling 600 ft. a minute, are to be provided.

LEWISHAM.—ADDITIONS. — No contracts yet placed for the additions to "The Holly Tree" public-house, Dermody-road, for Messrs. Hoare and Co., Ltd. The company's architect is Mr. Sidney C. Clark, F.R.I.B.A., 86, Fenchurch-street, E.C.2.

OLD-STREET.—BUILDING. — Plans have been prepared by Mr. G. G. Wimbourne, A.R.I.B.A., 214, Bishopsgate, E.C.3, for a factory and office block. The builders are Messrs. A. Class and Son, 28-29, Great Sutton-street, E.C.1.

PARK ROYAL. — EXTENSIONS. — The G.W.R. has accepted the tender of Messrs. W. T. Nicholls. Ltd., St. Paul's-road, Gloucester, for additional buildings at the Goods Depot, N.W.10. The company's chief architect is Mr. P. Emerson Culverhouse, F.R.I.B.A., Paddington Station, W.2.

PADDINGTON. — FLATS.—The plans for the block of working-class flats to be erected for the Grand Junction Canal Co., Ltd., 85, Gracechurch-street, E.C., at 53-57, Harrow-road, and 25-31, Irongate Wharf-road, W.2, have been prepared by Messrs. Percy H. Clarke and Son, 5, Arundel-street, W.C.2. The builders are Messrs. Rice and Son, Ltd., 15, Stockwell-road, S.W.9.

PLUMSTEAD. — ALTERATIONS. — Messrs. Stewart and Hendry, 90, Fenchurch-street, E.C.3, are the architects for the alterations to the "Percy Arms" public-house, in Maxey-road. Mr. J. E. Evans, 88b, Maxey-road, Woolwich, S.E.18, is the contractor.

RICHMOND.—POOL.—The T.C. is to apply to the Committee for Physical Training and Recreation for a grant towards the construction of a £35,000 open-air swimming pool and pavilion. The Crown surveyors are prepared to recommend the Commissioners of Crown Lands to permit the construction of the pool on a site north of the Chertsey arterial road, Richmond, in the Old Deer Park.

ROMFORD.—EXTENSIONS. — And alterations are to be made to the Chadwell Heath Paper Mills, for Messrs. Pirie, Appleton and Co., Ltd., 46, Mansell-street, E.C.1. The contractors are Messrs. J. Jarvis and Sons, Ltd., 8, Wormwood-street, E.C.2. The plans have been prepared by Messrs. Wallis, Gilbert and Partners, 15, Elizabeth-street, S.W.1.

ROYAL VICTORIA DOCKS. — WAREHOUSES.—The P.L.A. has decided to place contracts shortly for a number of large three-story transit sheds and warehouses on sites which are now being reclaimed. Plans have been prepared by the Authority's chief engineer, Mr. A. Binns, M.Inst.C.E., Trinity-square, E.C.3.

ST. MARY AXE.—OFFICES.—The Chamber of Shipping for the United Kingdom has acquired an important site in Bury-court, E.C.3, for headquarters, offices, etc. Plans are being prepared, the architects being Sir John Burnet, Tait and Lorne, FF.R.I.B.A., 1, Montague-place, W.C.1.

SIDCUP.—FLATS.—Mr. S. Cecil Macey, 15, Duke-street House, Mayfair, W.1, is the architect for 32 flats and 20 lock-up garages at Sidcup-hill. The building contract has been placed with Messrs. Stevemay Property, Ltd., 15a, Duke-street House, Mayfair, W.1.

SOUTHGATE.—SHOPS.—Plans have been prepared by Messrs. Marshall and Tweedy, FF.R.I.B.A., 96, New Cavendish-street, W.1, for three shops and living accommodation over at Chase Side. The contract has been placed with Messrs. George Moss (London), Ltd., Dorchester-road, Northolt Park.

STEPNEY. — ALTERATIONS. — Mr. R. J. Adams, 11, Finsbury-square, E.C.2. is the builder for the alterations to the "Refiners' Arms" public-house. 53, Buross-street. Messrs. Stewart and Hendry, 90, Fenchurch-street, E.C.3, are the architects.

SURREY.—SCHOOLS.—The Surrey C.C. has accepted the tender of Messrs. Thorogood and Sons, 55, Bond-street, Surbiton, at £5.875, for a school clinic at Barnes. Plans have been prepared by Mr. W. P. Robinson, M.Inst.C.E., Surveyor of County Buildings, Kingston. The E.C. has decided to proceed with new buildings for the Kingston School of Art, the cost of which is estimated at about £30,500, and for a new junior mixed and infants' school in London-road, Mitcham, at £25,234. Plans have been prepared for both schemes by Messrs. Jarvis and Richards, FF.R.I.B.A., 8a, Lower Grosvenor-place.

SWISS COTTAGE. — BRANCH. — Messrs. F. W. Woolworth and Co., Ltd., 1, New Bond-street, W.1, have acquired premises in Finchley-road, N.W., for conversion into a branch emporium. The work will be carried out by the company's building department, 311, Oxford-street, W.1, to the plans of the architect, Mr. C. B. Donaldson.

TOTTENHAM.—EXTENSIONS.—Plans have been passed by the T.C. for extensions to the factory on the east side of Garman-road, for Messrs. Exeloak, Ltd. The building work is being carried out by Messrs. Commercial Structures, Ltd., Staffa-road, Leyton, E.10.

TOTTENHAM.—EXTENSIONS. — The T.C. has approved plans for Messrs. J. Dickinson and Co., Ltd., for an extension to the factory at "Basildon Works," Fountayne-road. Mr. Burrage, of Aspley Mills, is the architect.

WALWORTH.—FLATS. — The Southwark B.C. have accepted a tender of £26,654 for the erection of 42 flats in Wesley-place, Walworth. The contractors are Messrs. Stewart and Partners, Ltd., 105, Baker-street, W.1.

WEMBLEY.—SHOPS.—Plans have been prepared and building work commenced on five shops and living accommodation over in Preston-road, by Messrs. Marshall and Tweedy, FF.R.I.B.A., 96, New Cavendish-street, W.1. The contract has been placed with Messrs. Janes (Builders), Ltd., Buckingham-avenue, Trading Estate, Slough.

WEST HAM. — REBUILDING. — Messrs. Stewart and Hendry, FF.R.I.B.A., 90, Fenchurch-street, E.C.3, are the architects for the rebuilding of the "Camden Arms" public-house, Field-road, corner of Macdonald-road. Messrs. Holliday and Greenwood, Ltd., 11, Buckingham Palace-gardens, S.W.1, have secured the contract.

WIMBLEDON.—FLATS.—Plans for 18 flats in Pelham-road, S.W.19, have been approved by the T.C. Mr. S. Cecil Macey, 15, Duke-street House, Mayfair, W.1, is the architect, and a contract has been placed with Messrs. Bleach and Skipper, 1452, London-road, Norbury.

Obituary: Mr. Wallace Elliot.

Mr. Wallace Elliot, who for many years was managing director of Messrs. Trollope and Colls, Ltd., London, died at his Surrey home, Valley Wood Place, West Chobham, on Friday. Well known in building and contracting circles throughout England, Mr. Elliot, who was 71, had been in ill health for some time before his death. He retired two years ago from the managing directorship of Messrs. Trollope and Colls. The funeral took place at Valley End Parish Church on Tuesday.

MISCELLANEA

South London Exhibition, Crystal Palace.

South London Exhibition, cancelled in 1936, when half organised, owing to the great fire which destroyed the Crystal Palace on the evening of November 30, is to be held from March 16-26 next, at the Crystal Palace. Plans now issued show that the new exhibition will straddle the existing permanent roads of the Lower Terrace immediately below the old Crystal Palace. Five single-span pavilions will be erected to house the exhibits, and will be constructed of canvas on a rigid semi-permanent framework of steel-braced timbers. The organisers are Ewart Watson Exhibitions, Ltd., 19, Charing Cross-road, W.C.2.

Institute of Physics.

At a meeting of the Board of the Institute of Physics, held on January 12, there were elected to membership 16 Fellows, 14 Associates, 8 Subscribers and 37 Students.

Registered Houses, Birmingham.

At the Hatchford Vale Estate, Birmingham, on January 14, the Lord Mayor of Birmingham (Councillor E. R. Canning) inserted in a recently erected house an air-brick intended to serve as a hall-mark of good workmanship, providing the purchaser with a guarantee that the house has been inspected, and that the builders have received a certificate from the Birmingham and District House Builders' Association.

Any builder, whether or not a member of the Association, will be eligible to receive a certificate, we learn, if his work comes up to the standard required. The inspection is carried out by an independent surveyor appointed by the Association, and if he considers a house well and truly built, and is to be sold at a price which at the current market rates is fair to the purchaser, a certificate is granted to the builder, who will then be entitled to insert into the walls an air-brick of registered design.

The New Westminster Hospital.

The Governors of Westminster Hospital have resolved to name a portion of the new hospital now being erected on the St. John's Garden site, the Coronation Wing, by gracious permission of His Majesty.

BUILDING WAGES

Gradings, Regradings and Differential Margin Alterations.

The following gradings, regradings and differential margin alterations have been authorised by the National Joint Council for the Building Industry, to take effect on and from February 1 next:—

NORTHERN COUNTIES REGION.—*Regradings*: A^2 to A^1 Berwick and District; A^1 to A Bishop Auckland District; A^1 to A District of North-West Durham.

MIDLAND REGION.—The Midland Regional Joint Committee have formulated a complete grading scheme for that Region. The scheme involves the regradings set out below. The scheme as a whole has been provisionally approved by the Council and takes effect on February 1. (The full list of adjustments is included in the Council's records and the resulting position will be incorporated in the official grading schedule.)

First Grading: A^3 Site of Digby R.A.F. Aerodrome.

Regradings: A^3 to A^2 Atherstone; B^2 to B Bidford-on-Avon; A^3 to A^2 Boston; B^1 to B Bourne; A^3 to A^2 Grantham; B to A^3 Henley-in-Arden; B^2 to B Kineton and Edgehills; A^1 to A Leamington and Warwick; A^3 to A^2 Rushden; B^2 to B Shipston-on-Stour; A^3 to A^2 Southwell; B^1 to B Spalding; A^3 to A^2 Stamford; B^2 to B Towcester; B^1 to A^3 Wirksworth A^2 to A^1 Worcester.

SOUTH WESTERN REGION.—*First Gradings*: A^3 Chudleigh; B Great Rissington; B Kemble; B^1 Lulworth; B Minchinhampton; B^2 Okehampton B^1 Site of Bovington Camp, Dorset.

Regrading: A^3 to A^2 Cheltenham.

Differential Margin Alterations: Removal of the differential of one halfpenny per hour (below the standard rate for craftsmen) at present applying to painters in Plymouth, Yeovil and Totnes.

SOUTHERN COUNTIES REGION.—*First Gradings*: B Site of Benson Royal Air Force Station; A^1 Northfleet.

Regradings: A^2 to A^1. Southampton and Eastleigh District; A^3 to A^1 Cobham, Kent, Darenth, Greenhithe, South Darenth, Southfleet, Swanscombe.

EASTERN REGION.—*Regradings*: A^1 to A Norwich; B^3 to B Rettendon; B^3 to B Runwell; B^3 to B Wickford.

Annual Review of Wages.

The National Joint Council for the Building Industry on January 13 reviewed the wages payments now in force under the National Joint Agreement, and decided that on and from the first day of February next, the current standard rates of wages shall be adjusted by an increase of one halfpenny per hour, the corresponding labourers' rates being adjusted proportionately as provided in the Rules. Resulting from the application of this decision, the authorised Grade Rates payable on and from February 1 next will be as under:—

London District.											
1/9	1/8½	Craftsmen	1/7½	1/7	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½
Within the 12 miles radius	From 12–15 miles radius	Grade Classifications	A	A^1	A^2	A^3	B	B^1	B^2	B^3	C
1/3½	1/3½	Labourers	1/2½	1/2½	1/2	1/1½	1/1½	1/0½	1/0½	1/0	-/11½

PROTECTION OF IRON AND STEEL FROM CORROSION

THE annual loss of iron and steel from rust or corrosion is incalculable. Corrosion is also responsible for what has come to be known as "corrosion fatigue." It is a definitely established fact that corrosion has the effect of seriously reducing the fatigue resistance (or endurance limit) of steel, and thus leads to its ultimate cracking and fracture. The physical effects of corrosion upon structural steelwork and their influence in the design and maintenance of certain types of machinery and plant are, therefore, problems of vital interest to the constructional engineer and to the maintenance chief. For each the question is: "How can corrosion be avoided?"

The corrosion of ordinary iron and steel is due to the combined influence of moisture, oxygen and carbon dioxide, the process being accelerated by acidic substances in the atmosphere. The rate of corrosion of an iron or steel surface depends upon the conditions to which it is subjected, and may vary widely. On certain metals a protective film or deposit is formed naturally, or it can be produced by artificial means. On zinc, for instance, under ordinary atmospheric conditions a film is formed which adheres firmly to the metal and protects it from further attack. High chromium iron and steel—that is, stainless—on exposure to the air also provide their own protective film or coat; but, of course, these alloys are more expensive and, therefore, limited in use. Ordinary iron and steel, on the contrary, are incapable of producing a protective coat of this kind. Iron, as we have seen, in contact with the atmosphere becomes oxidised and forms rust. This layer of oxide or other corrosive products is of a porous character, and retains moisture which readily takes up oxygen and acids from the atmosphere, thus still further accelerating corrosion.

It has been found that a most effective and economical method of protecting iron and steel from corrosive influences is by a coating of zinc, *i.e.*, galvanising. The term "galvanising" is usually understood to apply to the "hot" galvanising process, in which the articles to be treated undergo a preliminary pickling in hydrochloric acid to remove scale, and after washing in water are immersed in a bath of molten zinc. This process is totally distinct from the electro-galvanic method, in which a coating of zinc is obtained by electro deposition. This coating is comparatively thin, it is generally employed for the protection of smaller articles, and is especially suitable for bolts, nuts, screws, etc., where zinc would be likely to collect in the threads if galvanised by the "hot" process.

Hot galvanising is recommended wherever possible, because this process gives an even, substantial and homogeneous coating, which completely prevents the access of air and moisture to the basic metal. This galvanised surface, after a short exposure to the atmosphere, becomes coated with an extremely dense and insoluble deposit of zinc oxide and basic carbonate, which protects the underlying zinc from further atmospheric action. The weather-resisting property of the hot galvanised coating constitutes one of its most important advantages.

In adherence the protective coating obtained by the hot galvanizing process is excellent. The zinc coating becomes definitely alloyed with the surface of the iron, and it is interesting to know that this coating is composite in character and really consists of several layers, merging one into the other, so that there is no really sharp boundary between the iron surface underneath and the pure zinc above. The hot galvanising process is, therefore, recognised as a durable and weather-resisting method of protecting iron and steel from corrosion, as well as being economical.

In addition to the more general uses of hot galvanising with which we are familiar, there are many others in which it has been found of practical application. One of the most interesting and instructive examples is its use for the pylons of the "Grid" electricity system. The steel members of these pylons are galvanised before being assembled, and examination of the steelwork after some eight years' exposure to the weather shows no sign of corrosion. The saving in maintenance costs must, therefore, be very considerable, especially when the inaccessibility of some parts of the steelwork is borne in mind. These pylons provide the strongest evidence of the effectiveness of galvanising as a highly protective and enduring agent under the most testing conditions.

SPECIALISTS AND SUB-CONTRACTORS

THE Council of the National Federation of Specialists and Sub-contractors, at its December meeting, considered many points of interest to sub-contractors, on which they have provided the following notes:

The Federation is conscious of the value of the adaptation of the 1931 Form of Main Contract for use by local authorities and has strongly recommended its use in several cases where its opinion has been sought. Steps are also being taken to draw the attention of local authorities to the form.

A member has suggested that under clause 3 (b), paragraph IV of the 1936 Form of Sub-Contract, the sub-contractor indemnifies the contractor against injury to the sub-contractor's workmen arising other than under the Workmen's Compensation Act. The view of the Federation's solicitor is, however, that the above clause does not indemnify the main contractor against any claims made against the main contractor by the sub-contractor's workmen under Common Law, but only against claims made by such workmen under the Workmen's Compensation Act, Employers' Liability Acts, and other Acts of Parliament of a like nature. The National Federation of Building Trades Employers having agreed not to make any recommendation regarding the uniform national use of price fluctuation slips on tenders, the Federation agreed to adopt a similar attitude.

The opinion of the Federation has been sought as to the responsibilty for setting out holes in buildings in course of construction. In reply, the view was expressed that this was a question which must be decided between the main contractor and the architect after consultation with the various sub-contractors.

A welcome was extended to the National Federation of Terrazzo Mosaic Specialists, who have now taken up membership of the Federation.

NEW CINEMAS

BARKINGSIDE.—The Allworth Construction and Estates, Ltd., 197, Wardour-street, W.1, are to erect a cinema, seating about 2,500, with a café, flats, shops and car park, etc. The contractors are Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W.8, and the architect is Mr. George Coles, F.R.I.B.A., 40, Craven-street, W.C.2.

BARNSLEY.—The T.C. has approved plans for the erection of the Odeon Cinema in New-street, with accommodation for 1,600.

GLASGOW.—Plans are to be prepared by Mr. Thomas Gratton, F.R.I.B.A., 189, Pile-street, Glasgow, for a cinema which is to be erected at Nuneaton-street, Dalmarnock-road.

LEEDS.—The Watch Committee has approved plans for the erection of a cinema at the junction of Henconnor-lane and Stanningley-road, Bramley, for Mr. A. Cansfield, 179, Fagley-road, Bradford.

NOTTINGHAM. — Associated British Cinemas, Ltd., 30, Golden-square, W.1, are to erect a cinema, to seat 2,100, at the corner of Chapel Bar and Mount-street. Plans are being prepared by Mr. W. R. Glen, F.R.I.A.S., staff architect.

NUNEATON.—The Sheridan Film Services, Ltd., Burton-on-Trent, are to reconstruct the "Grand" Cinema, in Camp Hill-road, and have placed a contract for the work with Messrs. G. E. and W. Wincott, Ltd., Coton End, Nuneaton. The architects are Messrs. Bradley and Clark, LL.R.I.B.A., Cathedral-chambers, Temple-row, Birmingham.

ROMFORD.—Associated British Cinemas, Ltd., 30, Golden-square, W.1, have acquired a site in South-street for the erection of a cinema seating about 2,000. The contract has been placed with Messrs. Hunter and Clark, Ltd., Buckholt-road, Wandsworth, S.W. The architect is Mr. W. R. Glen, F.R.I.A.S., the quantity surveyor being Mr. Arthur G. Yuile, F.F.S., 17, Keswick-road, S.W.15.

SOUTH SHIELDS.—Plans have been prepared by Messrs. J. H. Morton and Sons, Martin's Bank-chambers, Fowler-street, South Shields, for the erection of a news-reel cinema on the site of the "Grand Electric" Cinema in Ocean-road. No contracts let.

STOCKPORT. — Mr. R. Bailey, "Chestnuts," Chester-road, Poynton, has secured the contract for the erection of a cinema in London-road, Poynton. The architect is Mr. George Clayton, 4, Wellington-street.

PUBLIC WORKS

GREAT BRITAIN.—Following are notes on some loans sanctioned by the Minister for the fortnight ended January 1:—Blackpool C.B.C.—£35,972 for erection of public offices; Croydon C.B.C.—£23,467 for purchase of property for improvement or development of the County Borough; Essex C.C.—£31,955 for erection of Thurrock Aveley Senior Council School; Hatfield R.D.C.—£65,000 for works of sewage and sewage disposal for Hatfield Parish and Hatfield Special Purpose Area; Hertford C.C.—£37,095 for purchase of land at Elstree and Baldock in connection with control of building development; Kent C.C.—£40,600 for widening and improvement of London-Dover road; Kettering U.D.C.—£42,166 for erection of Windmill-avenue Council School and caretaker's house; Lancashire C.C.—£100,000 for road improvement and equipment; Leicester C.C.—£22,830 for erection of gymnasium for Loughborough College; Pembroke R.D.C.—£11,873 for works of water supply for the parishes of Carew and Manorbier; Stoke-on-Trent C.C.—£60,000 for additional plant at the Etruria Gas Works; Stretford T.C.—£7,564 for provision of branch library at Lostock.

Following are notes of loans sanctioned during the week ended January 8:—Bedfordshire C.C.—£15,703 for erection of court house and police station at Leighton Buzzard, and £14,175 for a new police station at Biggleswade; Bournemouth C.B.C.—£32,320 for purchase of 8½ acres of land at Grovely Manor, Boscombe, for pleasure grounds; Cheshire C.C.—£13,980 for erection of court house and police station at Heswall; Croydon C.B.C.—£41,645 for public lighting; Gosport T.C.—£30,922 for erection of Privett-road Council School; Harrow U.D.C.—£12,750 for the widening of Rayners-lane; Ipswich C.B.C.—£33,355 for erection of Eastern senior boys' council school; King's Lynn T.C.—£49,343 for erection of new senior council school at Gaywood Park estate; Liverpool C.C.—£11,305 for purchase of Penketh School, Warrington, as an approved school; Middlesex C.C.—£68,843 for erection of new premises for Twickenham Hampton Grammar School; Rotherham C.B.C.—£38,358 for erection of fire station and firemen's dwellings; and Wilts C.C.—£44,154 for new premises for Chippenham District County School.

GREAT BRITAIN. — Among contracts advertised in this issue by local authorities as being open to tender are: Blackpool T.C.—46 houses at Bispham housing estate; Reading T.C.—108 houses at Whitley housing estate; Torquay T.C.—Concert-hall at Babbacombe; Chingford U.D.C.—62 houses at Lea Valley housing estate; Dorset C.C.—Technical school at Weymouth, school at Wareham.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary. A dagger (†) denotes closing date for applications for particulars; other dates are those for the submission of tenders; the name and address at the end refer to the person from whom particulars may be obtained. Abbreviations: T.C for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; B.S. for Borough Surveyor; B.E. for Borough Engineer; D.S. for District Surveyor; C. for Clerk; T.C. for Town Clerk; C.E. for County Engineer; C.S. for County Surveyor; S. for Surveyor; E. for Engineer; (F.) for F.R.I.B.A.; (A.) for A.R.I.B.A.; (L.) for L.R.I.B.A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, &c.

JANUARY 24.

†**Hendon.**—Lavatories.—In Queens-rd., for T.C. A. O. Knight, B.E. and S., Town Hall. Dep. £3.

†**Otterburn.**—Additions.—And alterations to school, for Northumberland C.C. County Architect, County Hall, Newcastle-upon-Tyne, 1. Dep. £2 2s.

JANUARY 25.

✱**Dudley.**—Houses.—150, on Cole-st. estate, Netherton, for T.C. B.E. Dep. £2 2s.

Pocklington.—Sick Bay.—Also master's house, at school, for Governors. A. J. Oliver, clerk, Grove House. Dep. £2 2s.

JANUARY 26.

✱**Birmingham.**—Extension.—Of Hockley depot, Whitmore-st., for Transport Committee. General Manager. Dep. £5 5s.

Blyth.—Cottages.—4, at fire station, Union-st., for T.C. Leonard Leeper, B.E. Dep. £3.

Chester.—Police Divisional Headquarters.—At Bromborough, Wirral, for C.C. F. Anstead Browne (F.). Dep. £2 2s.

Cromer.—Police Station.—And houses, for Norfolk C.C. County Architect, 25, Thorpe-st., Norwich.

✱**Dorset.**—Technical School.—At Weymouth and senior school at Wareham, for C.C. C. P. Brutton, clerk. Dep. £2 2s.

Ealing.—Cuckoo Infants' and Nursery Schools.—For T.C. F. J. Forty, B.E. Dep. £3 3s.

Frome.—Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Grimsby.—Sub-station.—At Garibaldi-st., for T.C. S. R. Windle, B. electrical E.

Huddersfield.—Extensions.—To nurses' home and wards at Municipal Maternity Home, Greenhead-rd., for T.C. B.E. and S. Dep. £2 2s.

Kinross.—Telephone Exchange.—At Great North-rd., for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh, 2. Dep. £1 1s.

Leyburn (Yorks).—Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Llangollen.—Convenience.—And alteration to existing one, for U.D.C. E. Foulkes-Jones, C., Bridge-st. Dep. £1.

Northampton.—Police Headquarters.—And courts, Campbell-sq., for T.C. J. C. Prestwich & Sons, architects, Bradshawgate-chambs., Leigh, Lancs. Dep. £5 5s.

Norwich.—Nursery School.—At Earlham North estate, for T.C. City Architect. Dep. £2 2s.

Peterborough.—Alterations.—To telephone area manager's office, 198, Park-rd., for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Portsmouth.—Alterations.—And additions for remand home, Flint House, Drayton, for T.C. City Architects. Dep. £1 1s.

Scarborough.—Referee's Building.—At Yorkshire Lawn Tennis Club, Filey-rd., for T.C. H. V. Overfield, B. and Water E.

St. Thomas.—Reconditioning.—Of 5 cottages at Brampford Speke, for R.D.C. E. O. Harding, architect, 49, Prospect-pk., Exeter.

Southampton.—Houses.—48, on Redbridge Hill site, for T.C. B.E. Dep. £3 3s.

Wandsworth.—Removing.—Existing glazed brick flooring at baths, for T.C. B.E.

Wincanton.—Houses.—26, also roads, sewers and car park on Churchfield estate, for R.D.C. R. Earnshaw, Council Offices.

JANUARY 27.

Cheltenham.—Pool.—Children's swimming pool at Sandford-pk, swimming pool, for T.C. G. Gould Marsland, B. and Water E. Dep. £1 1s.

Cornwall.—Hayle Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Erith.—Flooring.—At public baths, for U.D.C. E. and S. Dep. £1 1s.

Glasgow.—Demolition Work.—At Croftfoot temporary school, Castlemilk-rd., King's Park, for T.C. J. L. Mackenzie, T.C. Dep. £1 1s.

Glasgow.—Temporary Schools.—For T.C. J. L. Mackenzie, T.C. Dep. £2 2s.

Gloucester.—Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Hove.—Houses.—30, at The Knoll, for T.C. T. R. Humble, B.S. Dep. £3 3s.

Llanelly.—Houses.—6, at Cilheol, Trimsaran, for R.D.C. E. Morgan, architect, 63, Murray-st. Dep. £2.

Poplar.—Switch House.—In Glaucus-st., Bromley, E.3, for T.C. H. E. Dennis, T.C. Dep. £5 5s.

Tavistock.—Convenience.—At Whitchurch, for U.D.C. S.

JANUARY 28.

Abingdon.—External Decorating.—For T.C. Borough Housing Manager.

Bakewell.—Houses.—3, in Calver and 12 houses in Elton, for R.D.C. R. Hayhurst, S., 3, Baslow-rd. Dep. £1 1s.

Battersea.—Annual Contracts.—For B.C. R. G. Berry, T.C.

Blackpool.—Garage.—And conveniences in Straits-rd., for T.C. B.S.

Ely.—Bungalows.—20, in Brays-ln., for U.D.C. A. E. Woodrow, clerk, Lynn-rd.

Ireland.—Houses.—And out-offices, for Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin. Dep. £1.

Kimberley (Notts).—Telephone Exchange.—For H.M.O.W. Room 65D Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Kirriemuir.—Houses.—35, at Knowehead and Middlefield, for T.C. Lowe & Barrie (L.), F.R.I.A.S., Bank of Scotland-bldgs., Bank-st. Dep. £1 1s.

✱**Luton.**—Sub-station.—At Dudley-st., Leighton Buzzard, for T.C. W. H. Cooke, engineer. Dep. £2 2s.

Portsmouth.—Painting.—Exterior of South Parade Pier, for T.C. City Architect. Dep. £1 1s.

Stepney.—Tenements.—79, on an island site enclosed by Three Colt-st., Gill-st., Lance-st. and Grenade-st., E.14, for T.C. E. C. P. Monson (F.), 120, Moorgate. Dep. £3.

✱**Torquay.**—Concert Hall.—At Babbacombe, for T.C. P. W. Ladmore, B.E. Dep. £5 5s.

Warrington.—Installation.—Of heating, domestic hot water and ventilating at proposed Boteler grammar school, for T.C. B.E. and S. Dep. £2 2s.

Weymouth and Melcombe Regis.—Bandstand Enclosure.—And pier, for T.C. T.C. Dep. £5 5s.

JANUARY 29.

✱**Braintree.**—Furnishing Dept.—For Co-operative Society. Secretary, Bocking End. Dep. £1 1s.

✱**Doncaster.**—Waverley School.—For E.C. Walker & Thompson, Carbon-chambs., Hallgate. Dep. £2 2s.

Elgin.—Houses.—For T.C. Charles C. Doig, architect, 149, High-st.

Ossett.—Houses.—20, for T.C. B.S.

Reigate.—Bowls Pavilion.—At "Churchfields," for T.C. Geo. G. Sanderson, B.E. and S. Dep. £1.

Saddleworth.—Houses.—And bungalows, for U.D.C. Dixon, Hill & Co., architects, 52, Union-st., Oldham. Dep. £2 2s.

Yorkshire.—Maternity Home.—At Chapeltown, nr. Sheffield; and alterations and additions at Scotton Banks Sanatorium, nr. Knaresborough, for West Riding C.C. West Riding Architect, County Hall, Wakefield.

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JANUARY 31.

✱**Beckenham.**—Stewart Fleming School.—At Witham-rd, for T.C. C. Eric Staddon, T.C. Dep. £5 5s.

Bromley.—Extensions.—Of administration and cubicle blocks at Isolation Hospital, Lennard-rd., for West Kent Joint Hospital Board. F. H. Wood, P.A.S.I., surveyor, Gloucester House, 19, Charing Cross-rd., W.C. Dep. £3 3s.

Burton-upon-Trent.—Installation.—Of hot water heating and domestic hot water services in connection with the proposed town hall extension, for C.B. B.E. and S.

Cambridge.—Alterations.—And addtions at Morley Memorial council school, for T.C. B.S. Dep. £2 2s.

Carlisle.—Alterations.—And additions to buildings and nurses' home at City General Hospital, Fusehill-st., for T.C. City S., 18, Fisher-st. Dep. £2 2s

Coseley.—Houses.—38, at Princes End estate, for U.D.C. Joseph C. Roper, clerk. Dep. £2 2s.

Iver.—Demolition.—Of mansion, stabling and outbuildings at Huntsmoor Park, for Bucks C.C. County Planning Officer, County Offices, Aylesbury.

✱**Newcastle-upon-Tyne.**—Children's Rooms.—At the Victoria, Stephenson and Lady Stephenson libraries, for T.C. City Estate and Property Surveyor.

Ongar.—Houses.—20, for the R.D.C. Raymond L. Luck, S. Dep. £2 2s.

Palmers Green.—Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Rawtenstall.—Houses.—76 two-bedroom non-parlour, 28 three-bedroom non-parlour, and 8 three-bedroom-parlour, at Booth-rd. estate, Waterfoot, for T.C. B.S. Dep. £2 2s.

Wolverhampton.—Houses.—154, of various types, for T.C. B.E. Dep. £2 2s.

Yorkshire.—School Works.—For West Riding E.C. C. Ellison, Divisional Clerk, Education Office, Rock House, Swinton, Mexborough.

FEBRUARY 1.

Aberayron.—Additions.—And structural alterations and improvements to County School, for Cardiganshire E.C. R. Jones, County Architect, Llandyssul. Dep. £5 5s.

✱**Acton.**—Flats.—24, in The Steyne, for T.C. B.E. Dep. £2 2s.

✱**Bath.**—Two Shopfronts.—At Westgate-st., for T.C. A. J. Taylor (F.), 4 and 5, Bridge-st. Dep. £2 2s.

Chailey.—Houses.—36, for R.D.C. R. F. Cheale, architect. Dep. £2 2s.

✱**Chingford.**—Houses.—62, on Lea Valley housing estate, 1937, for U.D.C. S. J. Hellier, E. and S. Dep. £5 5s.

Cwmbran.—Houses.—42, on Ty Pwca housing site, Upper Cwmbran, for U.D.C. Arthur F. Viney, Housing S., Council Offices. Dep. £2 2s.

Docking.—Houses.—30, and 6 bungalows at "Kenside" estate, Snettisham, for R.D.C. J. H. Marshall, C. Dep. £2 2s.

Durham.—Garage.—And mortuary at Gilesgate Isolation Hospital, for T.C. John Wilfrid Green, City E and S. Dep. £1 1s.

Ireland.—Schools.—At Colmcille, Co. Galway, and Rossy, Co. Leitrim, for Irish Land Commission. Geo. P. Fagan, Office of Public Works, Dublin. Dep. £1.

Kirkby-in-Ashfield.—Houses.—For U.D.C. L. Dodsley, architect, Portland-chams., Sutton-in-Ashfield. Dep. £2 2s.

†**West Suffolk.**—Repairs.—To police stations and buildings, for Standing Joint Committee. County Architect, 13, Westgate-st., Bury St. Edmund's.

FEBRUARY 2.

Hove.—Two Swimming Baths.—Café, etc., at St. Aubyns site, Medina Esplanade, for T.C. T. R. Humble, B.S. Dep. £5 5s.

Portsmouth.—Houses.—200, at Wymering (Area A), for T.C. Adrien J. Sharp (L.). Dep. £3 3s.

Portsmouth.—Houses.—200, at Wymering (Area B), for T.C. Adrien J. Sharp (L.). Dep. £3 3s.

Wigan.—Painting.—And renovations at infirmary, A. Stanley Brunt, General Superintendent and Secretary.

FEBRUARY 3.

✱**Bethnal Green.**—Plumbing Works.—At Town Hall extension, for T.C. E. C. P. Monson (F.), 120, Moorgate, E.C.2.

✱**Leighton Buzzard.**—Houses.—36, on Mill-rd. and Baker-st. housing site, for U.D.C. B. H. Robjant, S. Dep. £2 2s.

Malmesbury (Wilts).—Telephone Exchange.—For H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Southgate.—Squash Courts.—At Bramley sports ground, for T.C. D. M. Mactavish, B.E. and S. Dep. £2.

Southgate.—Four Cottages.—And entrance gates, Grovelands-pk., for T.C. D. M. Mactavish, B.E. and S. Dep. £2.

West Hartlepool.—Nurses' Home.—Extensions to Wilson ward and boiler house, at Cameron Hospital, Francis Durkin, honorary architect, Municipal-bldgs. Dep. £5.

FEBRUARY 4.

✱**Bath.**—Heating.—At Oldfield Council schools, for T.C. Mowbray, Green & Hollier, architects, 27 Queen-sq. Dep. £2 2s.

✱**Bath.**—Extensions.—And alterations to Oldfield Council schools, for T.C. Mowbray, Green & Hollier, architects, 27, Queen-sq. Dep. £3 3s.

✱**Hertfordshire.**—School.—At Welwyn Garden City, for C.C. Clerk.

Llandilo.—Houses.—14 at Penygraig-rd., Ystradowen, Cwmllynfell, for R.D.C. T. G. Price & Griffiths, architects, 44, Rhosmaen-st., Llandilo.

Preston.—Shelter.—At institution, Fulwood, for T.C. B.E.

Taunton.—Repairs.—Decoration, roadmaking, etc. —At Isolation Hospital at Cheddon-rd., for Joint Hospital Board. Samson & Colthurst, 1, Hammet-st.

FEBRUARY 5.

Bagshot.—Additions.—And alterations to council offices, also installation of hot-water central heating and domestic hot-water services, for R.D.C. E. and Building Inspector, Council Offices, High-st. Dep. £2 2s. for alterations and £1 1s. for heating.

Essex. — Conversion. — Of the Convent of the Good Shepherd, Hermon Hill, Wanstead, into Essex County Hospital, for C.C. J. Stuart (F.), Chelmsford. Dep. £2 2s.

Essex. — Alterations. — And additions to Dagenham Arnold-rd. School, for C.C. J. Stuart (F.), Chelmsford. Dep. £2 2s.

Hartlepool.—Houses.—42, at Town Wall area, for North Eastern Housing Assoc., Ltd. J. H. Miers, B.E., Borough-bldgs. Dep. £3 3s.

Newmarket.—Houses.—27, at King George-av., for R.D.C. W. H. Eley, architect, Godolphin House. Dep. £2 2s.

Trowbridge.—Concrete Pool.—And buildings, etc., in connection with open-air bathing pool; also filtration and purification plant, on Longfield housing estate, Trowbridge, for U.D.C. Geo. W. J. Clark, E. and S. Dep. £2.

Wednesbury.—Houses.—292, non-parlour, 4 non-parlour, also shops, Park-ln., Old Park-rd. and Crankhall-ln. (East) housing estates, for T.C. Arthur Booth (L.), B.S. and Architect.

FEBRUARY 7.

Askham Bryan (nr. York).—Works.—At Yorkshire Institute of Agriculture, for Council for Agricultural Education. West Riding Education Architect, Baine-ln., Wakefield.

***Blackpool.**—Houses.—46, on Bispham housing estate, for T.C. B.S. Dep. £1.

***Dorset.**—Police Station.—At Poole, for C.C. C. P. Brutton, clerk. Dep. £2 2s.

Durham.—Alteration.—And repair of Boldon Colliery branch library, for C.C. F. Willey (F.), 34, Old Elvet.

Durham.—School Works.—For C.C. F. Willey (F.), 34, Old Elvet.

***Hexham.**—Houses.—12, at New Ridley, Stocksfield, for R.D.C. G. Nicholson, clerk.

Manchester. — Houses. — 216, at High Legh, Openshaw, and 32 residential flats at Temple Estate, Cheetham, for T.C. Chairman of Housing Committee. Dep. £2 2s.

Nuneaton.—Houses.—22, on Orton Park Farm estate, for T.C. B.S. Dep. £3 3s.

***Southampton.**—Additions.—To Itchen secondary school, for T.C. R. R. H. Meggeson, T.C. Dep. £2 2s.

Truro.—Installation.—Of heating apparatus at Municipal Buildings, for T.C. City S.

FEBRUARY 8.

Birmingham.—Airport Buildings.—In Coventry-rd., Elmdon, for T.C. Norman & Dawbarn, architects and engineers, 43, Grosvenor-pl., London, S.W.1. Dep. £5 5s.

***Cheltenham.**—Houses.—8, at Alderton; 6, at Little Witcombe, and 2, at Hailes, for R.D.C. E. H. Rosser, 14, Imperial-sq. Dep. £2 2s.

FEBRUARY 9.

***Haywards Heath.**—Offices.—In Boltro-rd., for Mid-Sussex Joint Water Board. Denman & Son, 27, Queen's-rd., Brighton. Dep. £2 2s.

FEBRUARY 10.

Brighouse.—Reconstruction.—And improvement at Granny Hall-ln., for T.C. B.E.

Seaton Valley.—Houses.—176, at Shiremoor, for U.D.C. S., Council Offices, Shiremoor. Dep. £1 1s.

FEBRUARY 12.

Loftus.—Houses.—70, on Deepdale housing estate, for U.D.C. E. Hollis, S. Dep. £2 2s.

***Reading.**—Houses.—108, on Whitley housing estate, for T.C. Housing Architect, St. Laurence's-churchyard. Dep. £2 2s.

FEBRUARY 14.

Baldock.—Houses.—71, for U.D.C. E. R. B. Harriss, architect, 43, Bedford-row, London, W.C.1. Dep. £3 3s.

Croydon.—Alterations.—And extensions to kitchen stores and messroom at Mayday Hospital, Thornton Heath, for T.C. Berney & Son, architects, 33, High-st. Dep. £5 5s.

Southport.—School.—At Meols Cop-rd., Blowick, for T.C. R. E. Perrins, T.C. Dep. £5 5s.

FEBRUARY 15.

***Essex.**—Alterations. — And additions, at West Mersea Council school, for C.C. J. Stuart, F.R.I.B.A., Chelmsford. Dep. £2 2s.

Melford.—Houses.—159, for R.D.C. F. P. Earee (L.), Newton-rd., Sudbury. Dep. £2 2s.

FEBRUARY 17.

London.—Alterations.—To fog-signal house, etc., at Longstone Lighthouse, Farne Islands, Seahouses, Northumberland. Secretary, Trinity House, E.C.3.

FEBRUARY 19.

***Bedford.**—Gymnasium.—At Silver Jubilee School, for T.C. Director of Education. Dep. £2 2s.

FEBRUARY 21.

***Rochester.**—Repainting.—The Bridge. C. L. Howard Humphreys, Bridge Engineer, 17, Victoria-st., London, S.W.1.

FEBRUARY 28.

Gloucester.—Houses.—216, at Coney Hill, for T.C. City Architect, Suffolk House, Greyfriars. Dep. £6 6s.

MATERIALS, &c.

JANUARY 26.

Wood Green.—Broken Granite.—For T.C. B.E. and S. Dep. £1 1s.

JANUARY 27.

East Barnet.—Broken Granite.—For U.D.C. C. M. Barnes, E. and S.

JANUARY 28.

Bucks.—Portland Cement.—For C.C. C.S., County Offices, Aylesbury.

Gainsborough.—Slag.—For U.D.C. S. Algar, S. and Waterworks E.

Hendon.—Road Materials.—For T.C. A. O. Knight, B.E. and S.

Portland.—Granite.—For U.D.C. R. Davidson, E. and S.

Sheffield.—Chips.—For surface dressing, for T.C. R. Nicholas, City E. Dep. 10s.

JANUARY 29.

Barnet.—Concrete Pipes.—For U.D.C. S.

Hazel Grove and Bramhall.—Setts.—For U.D.C. J. F. Andrew, S.

Northampton. — Roads. — Compounds, for C.C. E. A. Black, C.S., Northampton.

Slough.—Granite Chippings.—For U.D.C. S.

Somerset.—Surface Dressing Materials.—For C.C. C.S., County Hall, Taunton.

Stratford-upon-Avon. — Granite.—And limestone macadam, for T.C. F. W. Jones, B.S.

Trowbridge.—Road Materials.—For U.D.C. S.

JANUARY 31.

Acton.—Artificial Stone Paving.—For T.C. B.E.

Banbury.—Highway Materials.—For T.C. Sidney Hilton, B.S.

Bedford.—Highway Materials.—For T.C. C. H. Blakeway, B.E. and S.

Chingford.—Sand.—Ballast, shingle and hoggin, for U.D.C. S. J. Hellier, E. and S., Town Hall, The Ridgeway, E.4.

Friern Barnet.—Road Materials.—For U.D.C. J. Montague Gameson, E. and S.

Hampstead. — Highway Materials. — For T.C. P. H. Harrold, T.C.

Hornchurch.—Road Materials.—For U.D.C. Thos. E. Spencer, Highway S.

Hunts.—Road Stone.—For C.C. T. H. Longstaff, C.S.

Ilford.—Granite Macadam.—Chippings and kerb, for T.C. L. E. J. Reynolds, B.E. and S.

Manchester.—Bricks.—For T.C. Housing Director.

Margate.—Highway Materials.—For T.C. W. L. Armstrong, B.E., 40, Grosvenor-pl.

Padiham.—Granite.—And limestone macadam and chippings, for U.D.C. Granville Berry, S. and Water E.

Penrith.—Road Materials.—For U.D.C. T. F. Simmonds, E. and S.

St. Marylebone.—Highway Materials.—For B.C. T.C.

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Southampton.—Road Stone.—For T.C. A. C. Hughes, C.S., The Castle, Winchester.

Southgate.—Highway Materials.—For T.C. D. M. MacTavish, B.E. and S.

West Suffolk.—Broken Granite.—And chippings, for C.C. E. H. Bond, C.S.

FEBRUARY 1.

Banstead.—Road Materials.—For U.D.C. S.

Billingham.—Gravel.—For U.D.C. E. and S., Council Offices, Haverton Hill.

Chatham.—Gravel.—For T.C. R. L. Honey, B.E. and S.

Cumberland.—Road Materials.—For C.C. C.S., Carlisle.

Leeds. — Road Materials. — For T.C. Highways E.

Ware.—Bricks.—For U.D.C. P. W. Grantham, E. and S.

FEBRUARY 2.

Clacton.—Cement, etc.—For U.D.C. W. Aiston, S.

***London.**—Manhole Covers.—For H.M.O.W. Controller of Supplies, H.M. Office of Works, King Charles-st., S.W.1.

Merioneth.—Road Surface Dressing.—For C.C. H. E. Davies, C.S., County Offices, Dolgelley.

Southwark.—Highway Materials.—For B.C. D. T. Griffiths, T.C.

FEBRUARY 3.

Chelmsford.—Granite Chippings.—For T.C. V. J. Willis, B.E.

Salford.—Builder's Materials.—For T.C. City E.

FEBRUARY 4.

Uxbridge.—Tarmacadam.—For U.D.C. E. E. T. Bolton, E. and S., 263, High-st.

FEBRUARY 5.

Brierley Hill.—Painters' and Plumbers' Materials. —For U.D.C. Housing Manager.

East Grinstead.—Road Materials.—For U.D.C. E. and S.

Farnham.—Road Materials.—For U.D.C. L. H. Starling, E. and S.

Long Eaton.—Road Materials.—For U.D.C. H. Raven, E. and S.

Whitworth.—Setts.—Flags and kerbs, for U.D.C. E. and S.

FEBRUARY 7.

Brighton.—Portland Cement.—For T.C. B.E. and S.

Chesterfield.—Cement.—And lime, for T.C. B.E., 2, Gluman-gate.

Eastleigh. — Highway Materials. — For T.C. F. G. Lee, B.E. and S.

Gosport.—Highway Materials.—For T.C. B.E.

Middlesex.—Road Materials.—For C.C. C.E., 16, Great George-st., S.W.1.

Salford.—Granite Setts.—For T.C. City E.

Sutton and Cheam.—Road Materials.—For T.C. Harry Bolton, T.C.

FEBRUARY 8.

Caterham and Warlingham.—Road Materials, etc. —For U.D.C. S.

FEBRUARY 9.

Battersea.—Ironmongery, etc.—For B.C. H. F. J. Thompson, General Manager and Engineer, Electric House, 204, Lavender Hill, Battersea, S.W.11.

Burnley.—Highway Materials.—For R.D.C. F. Hewitt, S., 22, Nicholas-st., Burnley.

Macclesfield.—Highway Materials.—For T.C. E. Hamson, B.S.

***West Hartlepool.**—Sanitary Fittings.—At T.B. pavilion, Infectious Diseases Hospital, for T.C. B.E. Dep. £5.

***West Hartlepool.**—Sanitary Fittings.—At the Brinkburn secondary school for boys, for T.C. B.E. Dep. £5.

FEBRUARY 10.

Chertsey.—Tarred Macadam.—For U.D.C. W. V. Davies, E. and S.

FEBRUARY 11.

Hereford.—Granite Macadam.—For T.C. W. M. Shimmin, City S.

FEBRUARY 12.

Hayland.—Granite.—For U.D.C. J. R. Shephard, E. and S.

Nelson.—Granite.—And limestone, for T.C. F. V. Alexander, B.E.

York.—Road Materials.—For T.C. Chas. J. Minter, City E.

FEBRUARY 16.

Deptford.—Paving Materials.—For B.C. Ernest C. Seare, T.C.

FEBRUARY 19.

Doncaster.—Bricks.—For T.C. B.S.

ENGINEERING, IRON AND STEEL.

JANUARY 26.

Staffordshire.—Bridge.—And approach roads at Weston-on-Trent level crossing, Stone-Rugeley-rd., for C.C. C.S., Stafford. Dep. £5.

JANUARY 27.

Pontypridd. — Reconstruction. — Widening and lengthening of bridge carrying Pontypridd to Caerphilly Line over Treforest-rd., for G.W. Rlwy. Co. E., Paddington Station, London, W.2. Dep. £2 2s.

West Ham.—Footbridge.—Connecting North Woolwich-rd. and Knights-rd., Silvertown, and spanning Silvertown tramway of L.N.E.R., for T.C. W. L. Jenkins, B.E. Dep. £1.

JANUARY 28.

Cheshire. — Widening. — And reconstruction of Porter's Hill bridge carrying Wrenbury-Chorley-rd. over River Weaver, for C.C. G. E. Ashforth, C.S. and Bridgemaster, Watergate House, Watergate-st., Chester. Dep. £2 2s.

JANUARY 29.

East Suffolk. — Reconstruction. — Of Thorndon Bridge, for C.C. C.S., County Hall, Ipswich. Dep. £2.

Prestatyn.—Extensions.—To main drainage, for U.D.C. Howard Humphreys & Sons, consulting engineers, 17, Victoria-st., Westminster. Dep. £5 5s.

JANUARY 31.

Bucks.—Water Supply.—Reinforced concrete water tower at Mursley, Winslow, and two covered service reservoirs at Ashendon and Quainton respectively, Aylesbury, together with cast-iron mains, etc., for Water Board. D. Balfour & Sons, civil engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £10.

Lincolnshire.—Reconstruction.—Of Gosberton Fen Bridge over Hammond Beck, Gosberton Clough, for Holland C.C. Wm. A. Rogerson, C.S., County Hall, Boston. Dep. £3 3s.

Milford Haven.—Steelwork for Roof.—Precast flooring and stonework, for U.D.C. T. V. Williams, E. and S.

Wigton.—Sewerage.—At Newton Arlosh, for R.D.C. Fred J. Rodwell & Son, engineers, 20, Park-row, Leeds, 1. Dep. £3 3s.

FEBRUARY 1.

Cheshire.—Reconstruction.—Of Old Mill bridge, Dodcott, and approaches, for C.C. G. E. Ashforth, C.S. and Bridgemaster, Watergate House, Watergate-st., Chester. Dep. £10 10s.

Durham.—Sewage Works.—At Pot and Glass, Crossgate Moor, for T.C. City E. and S. Dep. £3 3s.

Stevenage.—Sewerage.—2,420 yds. of 21, 15 and 12 in. stoneware and cast-iron or concrete pipe sewers, manholes, etc., for U.D.C. D. Balfour & Sons, consulting engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £5.

FEBRUARY 2.

Northallerton.—Reservoir.—And pipe-line, for U.D.C. Edward Sandeman & Ptnrs., 15, Victoria-st., Westminster, S.W.1. Dep. £3 3s.

FEBRUARY 3.

St. Albans.—Sewerage.—In parishes of Redbourn and Sandridge, for R.D.C. D. Balfour & Sons, consulting engineers, 47, Victoria-st., Westminster, S.W.1 Dep. £5.

FEBRUARY 14.

***Croydon.**—Engineering Work.—At Mayday Hospital, Thornton Heath, for T.C. J. Roger Preston & Ptnrs., consulting engineers, Dilke House, Malet-st., W.C.1. Dep. £2 2s.

FEBRUARY 16.

Ashford.—Footbridges.—2, and incidental works at station bridge and Hythe-rd. bridge, for U.D.C. A. F. Webster, S., 5, North-st. Dep. £4 4s.

MARCH 3.

Johannesburg.—Tubular Steel Ladders.—100, for Union Tender and Supplies Board. Department of Overseas Trade, 35, Old Queen-st., S.W.1. **Ref.** T.16515/38.

ROAD, SEWERAGE AND WATER WORKS.

JANUARY 26.

Barnet.—Roads.—And sewers on Grange housing estate, for U.D.C. S.

Cheadle.—Sewer.—At Tean-rd., for R.D.C. A. P. Hancock, S. Dep. £1 1s.

Hackney.—Paving.—And making-up of cul-de-sac between Mare-st. and London-ln., for B.C. Percival Holt, B.E. and S. Dep. £1 1s.

Herne Bay.—Making-up.—Of Spenser-rd. extension, for U.D.C. B. J. Wormleighton, S.

Llanfyllin.—Laying.—Of pipes and building of storage tanks, collecting chambers, etc., for R.D.C. D. Jarrett Reese, clerk. Dep. £3 3s.

Stockport.—Street Works.—For T.C. B.S.

JANUARY 27.

Brierfield.—Sewer.—At station, for U.D.C. S. Dep. £1.

Brierley Hill.—Sewerage.—And sewage disposal works, for U.D.C. Fiddian & Deeley, 13, Church-st., Stourbridge. Dep. £5 5s.

Ogmore and Garw.—Pumping Station.—And other works at Brynmenyn, for U.D.C. Clerk. Dep. £3 3s.

Peterborough.—Mains.—On Garton End estate and Fulbridge-rd., Paston, for T.C. City E. Dep. £2 2s.

Southwick.—Laying-out.—Of two roads in connection with housing scheme, for U.D.C. Geo. W. Warr, S. Dep. £1 1s.

JANUARY 28.

Blyth.—Stoneware Pipe Sewers.—At Framlingham, for R.D.C. Major W. Herbert Bateman, E., St. Michael's-chams., St. Andrew-st., Norwich. Dep. £2 2s.

JANUARY 29.

Northampton.—Surface Dressing.—On county roads during year, for C.C. E. A. Black, C.S., Northampton.

JANUARY 31.

Bedford.—Sewer.—And appurtenant works in Brookfield-rd., for T.C. C. H. Blakeway, B.E. and S. Dep. £1.

Benfleet.—Road Works.—For U.D.C. S. Dep. £2 2s.

Leamington Spa.—Sewerage.—90 lin. yds. of 18 in. dia. and 110 lin. yds. of 15 in. dia. stoneware pipes, together with construction of manholes and other appurtenant works, for T.C. J. Sutcliffe, B.E. Dep. £2 2s.

Sale.—Widening.—And reconstruction of Marsland-rd. (part), for T.C. E. Bleakley, B.S. Dep. £2

Shoreham-by-Sea.—Making-up.—Of East Meadway (part of), Shoreham Beach, for U.D.C. J. Dunn, S.

Sunbury-on-Thames.—Reconstruction.—Of Thames-st., for U.D.C. A. J. Buttress, E. and S. Dep. £2 2s.

FEBRUARY 1.

Burnley.—Street Works.—For R.D.C. Frank Hewitt, S., 22, Nicholas-st. Dep. £2 2s.

Cheshire.—By-pass.—At Timperley, for C.C. G. E. Ashforth, C.S. and Bridgemaster, Watergate House, Watergate-st., Chester. Dep. £10 10s.

Cyfarthfa.—Roads.—Roads, drainage and general site filling and levelling, including demolition of existing buildings and construction of factory and administration buildings, on Cyfarthfa Estate, for South Wales and Monmouthshire Trading Estates, Ltd. Sir Alexander Gibb & Partners, Treforest Trading Estate, Pontypridd. Dep. £2 2s.

Enniskillen.—Sewer Pipes.—In Lisbellaw, for R.D.C. Clerk. Dep. £5.

Southgate.—Street Works.—For B.C. B.E. and and S. Dep. £2.

Stevenage.—Sewerage.—For U.D.C. D. Balfour & Sons, consulting engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £5.

FEBRUARY 2.

Bosham.—Making-up.—Of Sunnyway, Bosham, for West Sussex C.C. C.S., Chichester. Dep. £1.

Clacton.—Making-up.—And part sewering, Beaumont-av., for U.D.C. W. Aiston, S.

Lancing.—Making-up.—Of Myrtle-cres., for West Sussex C.C. C.S., Chichester. Dep. £1.

Luton.—Reconstruction.—Of Old Bedford-rd. and Bradgers Hill-rd., for T.C. J. W. Tomlinson, B. E. and S. Dep. £2 2s.

Luton.—Street Works.—For T.C. J. W. Tomlinson, B.E. and S. Dep. £2 2s.

Old Fletton.—Sewers.—For U.D.C. G. B. Kershaw & Kaufman, engineers, 9, Victoria-st., S.W.1. Dep. £5.

Pontardawe.—Additions.—To sewage outfall works at Clydach, for R.D.C. B. Islwyn Phillips, S. Dep. £3.

FEBRUARY 3.

East Retford.—Relief Sewer.—For T.C. Elliott & Brown, engineers, Burton-bldgs., Parliament-st., Nottingham. Dep. £3 3s.

Middleton.—Laying.—Mastic asphalt at Townley-st., for T.C. Edward Smith, T.C.

Rhyl.—Making-up.—At Garnett-av., Terence-av., Orton-gr., Ellis-av. (part of), Barry-rd. North, Barry-rd. South and Norman-dr., Rhyl, for U.D.C. Town S. Dep. £2 2s.

Rustington.—Making-up.—Of Seafield-rd., for West Sussex C.C. C.S., County Hall, Chichester. Dep. £1.

Sheppey.—Stoneware Pipe Sewers.—For R.D.C. E. F. Brading, E., 395, Minster-rd., Minster. Dep. £5.

FEBRUARY 5.

Harrow.—Reconstruction.—Of High-st., Wealdstone, for U.D.C. H. W. Rackham, S. Dep. £3 3s.

Orpington.—Street Improvement Works.—For U.D.C. Thomas Watson, E. and S. Dep. £3 3s.

FEBRUARY 7.

Newcastle-on-Tyne.—Outfall Sewer.—Into River Tyne, for T.C. City E.

FEBRUARY 10.

Brighouse.—Reconstruction.—Of Granny Hall-ln., Brighouse, for T.C. B.E.

Hemel Hempstead.—Sewer Extension.—For T.C. A. Murray-Smith, B.E.

Pontypridd.—Widening.—And improvement of Llantwit-rd., for U.D.C. W. E. Lowe, E. and S. Dep. £2 2s.

FEBRUARY 14.

Baldock.—Roads.—Sewers and water mains in connection with 71 houses, for U.D.C. E. R. B. Harriss (A.), 43, Bedford-row, London, W.C.1. Dep. £2 2s.

Bermondsey.—Road Materials.—For B.C. T.C.

Wirral.—Widening.—Reconstruction and improvement of Thingwall-rd., Irby, Gayton-rd., Heswall, and Gayton-ln., Gayton, for U.D.C. S. Dep. £5 5s.

FEBRUARY 19.

Pontefract.—Sewers.—2½ miles of concrete tube sewers, partly in tunnel and varying in size from 57 in. to 24 in. internal dia., for T.C. W. H. Newton, B.E. Dep. £5 5s.

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FEBRUARY 21.

Luton.—Sewerage.—And sewage purification works, for R.D.C. M. G. & R. W. Weekes, engineers, 75, Victoria-st., London, S.W.1. Dep. £5 5s.

Public Appointments.

JANUARY 24.

Caernarvon.—Quantity Surveyor.—For T.C. David G. Jones, C.

Fulham.—Architectural Assistant (Temp.).—For T.C. T.C.

Merton and Morden.—Clerk of Works (Temp.).—For U.D.C. C. J. Mountfield, C.

JANUARY 25.

***Plymouth.**—Architectural Assistant (Temp.).—For T.C. City Architect.

Plymouth.—Two Architectural Assistants.—For T.C. City Architect.

JANUARY 26.

***Aldershot.**—Architectural and Civil Engineering Assistants (Temp.).—For War Department Chief Engineer, Command Headquarters.

***Huddersfield.**—Architectural Assistant.—For T.C. Director of Education

Mitcham.—Clerk of Works.—For T.C. B.E.

JANUARY 27.

Norwich.—Three Architectural Assistants and one Quantity Surveying Assistant (Temp.).—For T.C. T.C.

JANUARY 28.

***Huddersfield.**—Four Assistants.—For T.C. W. Jaggar, B.E.

Leeds.—Draughtsman.—For E.C. Director of Education.

Leeds.—Junior Architectural Assistant.—For E.C. Director of Education.

***Lindsey (Lincolnshire).**—Quantity Surveyor.—For C.C. P. W. Birkett (A.).

***Staffordshire.**—Clerk of Works.—For R.C. Architect.

JANUARY 29.

***Gloucester.**—Architectural Assistant.—For C.C. R. S. Phillips (F.), County Architect.

JANUARY 31.

Essex.—Architectural Assistant (Temp.).—For C.C. J. Stuart (F.), County Architect, Chelmsford.

Essex.—Architectural Assistant.—For C.C. J. Stuart (F.), Chelmsford.

Essex.—Tracing Assistant.—For C.C. J. Stuart (F.), County Architect, Chelmsford.

***Essex.**—Head of Building Department.—At South-west Technical College. For E.C. John Sargeant, Chelmsford.

***Kent.**—Engineer.—For C.C. W. L. Platts, C. Maidstone.

Norfolk.—Architectural Assistant.—For R.C. Secretary.

Staffordshire.—Architectural Assistants.—For C.C. K. L. Murray, County Architect.

***Yorkshire.**—Junior Architectural Assistant.—For North Riding C.C. Hubert G. Thornley, clerk, Northallerton.

FEBRUARY 1.

East Suffolk.—Two Architectural Assistants.—For C.C. E. J. Symcox, A.R.I.B.A., 9, Burlington-rd., Ipswich.

FEBRUARY 5.

***Wilts.**—Clerk of Works.—For C.C. Clerk, Trowbridge.

FEBRUARY 7.

***Banstead.**—Clerk of Works.—For U.D.C. Clerk.

***Bootle.**—Architectural Assistant.—For T.C. B.E. and S.

***Nottingham.**—Assistant Quantity Surveyor.—For T.C. R. M. Finch, E. and S.

***West Sussex.**—Two Junior Architectural Assistants (Temp.).—For C.C. C. G. Stillman (F.), Chichester.

NO DATE.

***Derby.**—Architectural Draughtsman.—For War Department. D.C.R.E., North Midland Area, Normanton House.

***London.**—Assistant Civil Engineers.—For Air Ministry. Secretary (W.9), Room 72, Adastral House, W.C.2.

***London.**—Architectural and Engineering Assistants (Temp.).—For Air Ministry. Secretary (W.9), Adastral House, W.C.2.

***London.**—Assistant Quantity Surveyors.—For Air Ministry. Secretary (W.9), Adastral House, W.C.2.

***London.**—Three Assistant Surveyors and two Surveyor's Assistants.—For Singapore, for Air Ministry. Secretary (W.9), Adastral House, W.C.2.

***London.**—Clerk of Works.—For Singapore, for Air Ministry. Secretary (W.9), Adastral House, W.C.2.

***London.**—Quantity Surveyor.—For Government of Hong Kong. Crown Agents for the Colonies, 4, Millbank, S.W.1. Quote M/5606.

***London.**—Asssistant Surveyor.—For Malta, for Air Ministry. Secretary (W.9), Adastral House, W.C.2.

Manchester Town Hall Extension.

In the description of this new building given in our last issue it was stated that the stone used was Portland. We are informed that the whole of the stone was Stancliffe (Darley Dale), supplied by the Stancliffe Estates Co., Ltd., of Stancliffe, Darley Dale.

CURRENT AND PROPOSED BUILDING WORK*

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later then Wednesday morning.

Alfreton.—Miners' Welfare Central Fund Committee propose pithead baths at Swanwick Collieries. Plans by J. H. Forshaw (F.), Romney House, Marsham-st., London, S.W.1.

Bakewell.—R.D.C. approved plans for rebuilding club premises, Tideswell, for Committee of Ex-Servicemen's Club.

Banbury.—Plans forwarded to B. of E. for Church of England senior school. Architect, Gilbert T. Gardner (F.), Barclays Bank-chambs., St. Aldate's, Oxford.

Bethnal Green.—B.C. approved applications:—Flats, Burnham-sq.; alteration to the "Red Lion" public-house, Warner-pl.; one block of five-storey dwellings on Tent-st. area; C. B. Smith, two-storey garage, 260, Cambridge-rd. and Wadeson-st.

Birmingham.—T.C. to erect maternity and child welfare centre at Treaford-ln., Alum Rock, at £7,510. Architects, Harrison & G. B. Cox (F.), 109, Colmore-row, Birmingham.

Blackpool.—C.B. resolved to grant W. H. Airey to erect, on land in Clifton-dr., Blackpool, 11 boarding-houses.—Amended density and lay-out plan submitted from R. Fielding & Son, for 62 houses on land in vicinity of Penrose-av.—Corporation to apply to M.H., through the B. of E., for sanction to loan of £24,439 14s., in connection with the erection of Stanley school.—Plans passed: Ramsden Bros. (Blackpool), Ltd., 17 houses, 12 garages, Preston New-rd., etc.; Blackpool Pre-cast Stone Co., 20 houses, Carlyle-av.

Carlisle.—City E. to prepare £12,000 scheme for open-air swimming pool.

Cornforth.—Amended lay-out plans approved for 26 houses by J. & S. Bernstein, builders, Sedgefield.

Denaby.—Central Miners' Welfare Committee informed Denaby Main Colliery Co., Ltd., of their intention to erect new pithead baths and canteen. Plans by architect's section of Mines Welfare Dept., London, W.1. Tenders will be invited.

Deptford.—B.C. approved:—Purvis & Purvis, 417, New Cross-rd., lock-up garages for private and commercial vehicles, together with a repair shop, rear of 14-20, Harton-st. and Nos. 9-23, Vanguard-st.

Dewsbury.—T.C. approved plans for warehouse and shop, Edgetop, Thornhill, Dewsbury Pioneers Industrial Society, Ltd.

Doncaster.—T.C. approved plans for first section for construction of road from Frenchgate to Market-rd. at £72,400.—T.C. approved plans for garages, stores, etc., at airport.

Flockton, Emley and Whitley (Upper).—U.D.C.s propose joint sewerage scheme at £32,000. Plans by D. Balfour & Sons, St. Nicholas-st., Newcastle-on-Tyne.

Folkestone.—T.C. approved:—Extensions and alterations, "Ambassadors" hotel, The Leas, for C. Hall; reconstruction of "Ship Inn" public-house, Radnor-st., for Fremlins, Ltd.

Frodsham.—Greenall, Whitley & Co., Ltd., Wilderspool Brewery, Warrington, propose hotel, junction of Chester to Birkenhead-rd., Backford Cross.

Fulham.—B.C. approved:—Rebuilding "The Wellington" beerhouse, Haldane-rd.

Gateshead.—Marshall, Tweedy & Bourn, 129, Pilgrim-st., Newcastle-on-Tyne, architects for proposed rebuilding of "Albion Inn," High-st., for Bass & Co.—E. Griffiths & Son, consulting engineers, Liverpool, reported to T.C. that engineering services for general hospital at Sheriff Hill will cost £56,000. Tenders for hospital being obtained. Plans by F. H. Patterson, B.E.—Newcastle Breweries, Ltd., Haymarket, Newcastle-on-Tyne, to erect hotel on Chowdene estate. Architects, J. Oswald & Sons, Bradburns-chams., Northumberland-st., Newcastle-on-Tyne.

Greenwich.—B.C. recommended estimate of B.E. and S. for work at South-st. underground convenience for £1,153.—Plans passed:—Road, garage and showrooms, north side of Woolwich-rd., adjoining West-st.; street and culs-de-sac, and houses and 2 blocks of flats on site rear of 101-163, Church-ln. and 19-85, Lansdowne-rd.—Drainage plans passed:—P. B. Dannatt, 18, Nelson-st., Greenwich, at proposed extension of Hatcliffe Almshouses, Tuskar-st.; Alfred Roberts, 92, London-st., Greenwich, addition to and partially reconstruct drainage system at the British Ropes, Ltd., premises, Anchor and Hope-ln.; James Jennings & Son, Ltd., c/o J. E. M. Clifton, Empire House St. Martin's-le-Grand, E.C., to alter drainage system at Queen Elizabeth's College Almshouses, Greenwich-rd.

Hagley.—E.C. approved plans for junior and infants' council school to accommodate 160 children. Architect, A. V. Rowe, County Architect, Foregate-st., Worcester.

Hale.—Hardy's Crown Brewery, Ltd., Renshaw-st., Hulme, Manchester, propose erection of "Moss" hotel, junction of Moss-ln. and Orchard-dr.

Harraton.—W. B. Reid & Co., brewers, Upper Claremont, Newcastle-on-Tyne, have scheme under consideration for licensed premises.

Harwich.—T.C. agreed to adopt scheme of John Taylor & Sons, Westminster, at £24,130, for sewage works at Upper Dovercourt.—Council are contemplating showrooms, offices and stores at Dovercourt, at £7,000.

Havant and Waterloo.—U.D.C. approved sewerage scheme costing £98,416.

Hayling Island.—C. Silvester proposes lay-out for new estate off Havant-rd., south of Hayling school.

Hebburn-on-Tyne.—J. Carr, builder, 13, Westcott-rd., Tyne Dock, South Shields, to erect 22 houses in Black-rd. area.

Hemel Hempstead.—T.C. approved plans for 20 houses in West Valley-rd. for H. V. Wells.

Kellee.—J. Nimmo & Sons, brewers, Castle Eden, contemplating erection of hotel.

Leeds.—Kirkstall Brewery Co., Ltd., propose hotel, junction of Eden-dr. and Kirkstall-ln. Plans by A. & F. Mosley, Ltd., Wormald-row.

Lewisham.—B.C. approved:—G. H. Fletcher, 16 houses, Oldstead-rd.; T. A. Boughton, additions at 22-24, Callander-rd., Catford; Wm. C. Casse, houses, 40, Somertrees-av., Grove Park; M. A. Munford, garages, corner of Codrington-hill and Stillness-rd., Brockley; G. W. Crosby, premises, 56, Bankhurst-rd., Catford; Universal Shop Fitting Co., Ltd., additions at 5, Imperial-bldgs., London-rd., Forest Hill; Vigers & Co., houses, between Southend-ln. and Beckenham-hill Station-approach, Catford; Wates, Ltd., block of 15 flats, Bromley-rd.; G. H. Dabin, flats, 43-44, Addington-gr., Sydenham; Commercial Structures, Ltd., alterations to factory in Worsley Bridge-rd., Sydenham; L. E. Tompkins & Co., flats, between 111-125, Ladywell-rd., Brockley; Longley & Fairer, garages on site of Hilton Cottage, Fransfield-gr., Sydenham; D. J. Moss, extend laundry premises at 26, Marischal-rd., Lewisham; Wates, Ltd., houses, Hall Park estate, Catford; Lyons & Co., alterations and additions to Engate-st. bakery, Lewisham.

Longley.—Baptist hall at junction of Lower-houses-ln. and Hall Cross-rd. Architects are Lunn, Heppenstall & Lunn, Milnsbridge.

Lowestoft.—Plans for completion of north sea wall at £33,783 approved by T.C.

Maldon.—R.D.C. to erect 58 houses.

Manchester.—Shaftesbury Developments, Ltd., to spend £25,000 on improvements to Prince's Theatre.

Middlesbrough.—Cameron & Co., brewers, propose hotel in Parliament-rd. Plans by Kitching & Co., 21, Albert-rd.

Neston.—C. of E. Diocesan Board propose senior school for 400 mixed scholars. Plans by F. C. Saxon, Central-chams., St. Werburgh-st., Chester.

Newcastle-on-Tyne.—W. Dixon & Sons, 1, Collingwood-st., Newcastle-on-Tyne, prepared plans for 10 miners' homes on Blakelaw estate for Northumberland Aged Miners' Homes Association. No contracts let.—No contracts let for warehouse in Brunel-st. for Miss Cameron. Architects are A. H. Fennell & Co., 16, West-st., Gateshead.—Plans being considered for new R.C. church and hall in Stotte-rd. for Rev. Peter McLean. Architect, R. Burke, Singleton House, Northumberland-rd.—Architect for rebuilding of "Grace Inn," Shields-rd., for R. Deuchar, Ltd., is S. H. Lawson, Emerson-chams. No contracts let.—Electric lighting is to be installed in 312 council houses on the Blakelaw estate. R. J. Roberts, 18, Cloth-market, Newcastle, Housing Architect.—Elementary school to be erected in Whickham View. Plans by F. Harvey, Education Offices.—G. L. Lockey & Sons, Ltd., propose sawmills and buildings in Debden-st. Plans by Marshall, Tweedy and Bourne, Mervyn House, Pilgrim-st.

Oldham.—H. S. Doran, architect, 19a, Offerton-ln., Stockport, prepared plans for 38 houses in blocks.

Portsmouth.—T.C. approved:—Brown & Fuller, 3 bungalows, 12 houses, 15 garages, Second-av., Farlington; Morris Development Co., Ltd., 5 shops and surgery at rear, 47 to 53, High-st., Cosham; Buckingham Bros., Ltd., rebuilding 2 houses and shops, 261-263, Fratton-rd.; Dye Bros., 24 houses and garages, Dysart-av., Cosham; A. V. Laird, Ltd., block of office buildings, 1-13, Commercial-rd.

Ramsey.—U.D.C. to erect 32 houses.

Ringway.—Manchester Corporation proposing erection of "Terminal Buildings" hotel, Ringway Airport.

Sale.—Hardy's Crown Brewery, Ltd., Henshaw-st., Hulme, Manchester, propose erection of "Watling" hotel, Washway-rd.—Groves & Whitnall, Ltd., Regent-rd. Brewery, Salford, propose erection of "Woodheys" hotel, Washway-rd.

Sheffield.—T.C. approved plans for offices, Sharrow Vale-rd., J. & H. Wilson, Ltd., West Brook Mill.—T.C. approved plans for development of land for 50 houses, sale shops and 3 proposed streets off Hollinsend-rd., for W. A. Wright, builder, Sandford Grove-rd.—Plans approved by T.C.:—157 houses at Mansfield-rd. and Hollinsend-rd., W. H. Lancashire & Son, architects, Hartshead; filling station and garage, Suffolk-rd., for Holmes & Younie, Ltd., 635, Ecclesall-rd., Broomhill; furnace shop to factory, Hereford-st., W. A. Tyzack & Co., Ltd., Stella Works; engineering department, Darnall-rd., Kayser, Ellison & Co., Ltd., Carlisle-works; 18 houses and 15 garages on Hancock-rd., J. P. Hunter, architect, 13, St. James-row; 60 houses at Moffatt-rd., Heeley Bank-rd. and Cross Myrtle-rd., T. Wilkinson & Sons (Builders), Ltd., Olive Grove-works; 29 houses and 4 garages, Stephenhill and Marsh-ln., T. V. & W. I. Simpson, Headland-rd., Broomhill.

Shropshire.—County E.C. approved plans for following schools: Bridgnorth senior council school for 360 children; Orleton-ln. council school, Wellington, for 400 children; and senior council school at Whitchurch for 360 children.

Slough.—Additions to be made to factory, Trading Estate, for St. Helen's Cable & Rubber Co., Ltd. Plans by Dudley Nisbett, 81, Dale-st., Liverpool.

Stockton-on-Tees.—T.C. obtained sanction from B. of E. for senior council school at Morton, at £26,727. G. P. Stainsby, 25, High-st., architect.

Stoke-on-Trent.—Managers of Werrington school proposing additions.

Stretford.—Hardy's Brewery Co., Ltd., Wrenshaw-st., Hulme, Manchester, propose erection of "Happy Man" hotel, Barton-rd.

Sunderland.—T.C. approved 260 flats in two blocks and 10 shops and children's recreation ground in Hartley-st.—Factory is to be built on Wearside Trading Estate, for Saturn Oxygen Co., by North Eastern Trading Estates, Ltd., Metrovick House, Newcastle-on-Tyne.

Swansea.—C.B. approved:—Warehouse, Prince of Wales-rd., Trustees of the late Charles Gustavus; rebuilding "Station Inn," High-st., Ind, Coope & Allsopp, Ltd.; new streets and 29 houses, Plasmarl, J. C. Oliver.

Tamworth.—B. Richards, 107, Birchfields-rd., Birmingham, propose 42 houses off Tamworth to Coleshill-rd.

Thames Ditton.—Plans prepared by Edward Maufe (F.) for erection of All Saints' Church, Weston Green.

Thurrock.—U.D.C. instructed E. and S. to prepare plans for surface water drainage scheme for Little Thurrock area of Grays. Scheme estimated to cost about £100,000.—Plans passed:—36 semi-detached bungalows and 2 detached bungalows, Blackshots-in., Little Thurrock, R. J. Billings; soap factory at West Thurrock, for Thomas Hedley & Co.

Upholland.—U.D.C. propose council offices. An architect not yet been appointed to prepare plans.

Urmston.—Walker & Humphrey, Ltd., Woodside Brewery, Salford, propose erection of "Moss Vale" hotel, corner of Moss Vale-rd.

Uxbridge.—U.D.C. approved:—Snowden-av., Hillingdon, 22 houses, H. B. Silver, Ltd.

Wakefield.—Corporation to erect block of flats to accommodate firemen near central fire station in King-st.

Warrington.—Plans by B.S. for meat and fish markets to be joined to present covered general market have been approved by T.C. Cost, £60,000.

Wednesbury.—T.C. approved:—E. Smith & Son, 66 houses, Brunswick Park estate, Crankhall-ln.; Highgate Brewery Co., public-house, Holyhead-rd.

Whitby.—Bent's Brewery Co., Ltd., 30, Johnson-st., Liverpool, propose licensed premises, junction of Woodlands-rd. and Heath-rd.—P. Walker (Warrington) and Robert Cain & Son, Ltd., brewers, 105, Duke-st., Liverpool, propose hotel near railway bridge at Overpool.

Wood Green.—T.C. to invite tenders for convenience in Albert-rd. recreation ground.—B.E. to carry out work at open-air swimming pool in Durnsford-rd., at £850.

* See also List of Contracts Open.

*** In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. List of abbreviations on page 176.

SLIDING DOOR GEAR

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THE BRITISH TROLLEY TRACK CO., LTD.

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RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1937.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers.
Aberavon	1/7	1/2½
Aberdare	1/6½	1/2
Abergavenny	1/6½	1/2
Abingdon	1/5½	1/1½
Accrington	1/7	1/2½
Aldeburgh	1/3	11½
Aldershot	1/5	1/0½
Alfreton	1/7	1/2½
Alnwick	1/6½	1/2
Altrincham	1/7	1/2½
Amble	1/6½	1/2
Amersham	1/5½	1/1½
Ammanford	1/7	1/2½
Andover	1/5	1/0½
Ardingley	1/5	1/0½
Arundel	1/5	1/0½
Ascot	1/5	1/0½
Ashby-de-la-Zouch	1/5½	1/1½
Ashford (Kent)	1/4½	1/0½
Ashford (Middlesex)	1/7	1/2½
Ashington	1/6½	1/2
Ashstead	1/7	1/2½
Ashton-under-Lyme	1/7	1/2½
Aylesbury	1/5	1/0½
Aylsham	1/4	1/-
Bagshot	1/5	1/0½
Banbury	1/5	1/0½
Barnsley	1/7	1/2½
Barnstaple	1/5	1/0½
Barrow-in-Furness	1/7	1/2½
Barry	1/7	1/2½
Basingstoke	1/5	1/0½
Bath	1/6	1/1½
Batley	1/7	1/2½
Beaconsfield	1/5½	1/1½
Beccles	1/3½	11½
Bedford	1/6	1/1½
Berkhamsted	1/4½	1/0½
Berwick	1/6	1/1½
Beverley	1/7	1/2½
Bexhill-on-Sea	1/5	1/0½
Bideford	1/5	1/0½
Biggleswade	1/4½	1/0½
Billericay	1/4½	1/0½
Birchington	1/4½	1/0½
Birkenhead	‡§1/8½	¶
Birmingham	1/7	1/2½
Bishop Auckland	1/6½	1/2
Bishops Stortford	1/5½	1/1½
Blackburn	1/7	1/2½
Blackpool	1/7	1/2½
Blyth	1/7	1/2½
Bognor Regis	1/5	1/0½
Bolton	1/7	1/2½
Bournemouth	1/6	1/1½
Bracknell	1/5	1/0½
Bradford	1/7	1/2½
Bradford-on-Avon	1/4*	1/-
Braintree	1/5	1/0½
Brentwood	1/6½	1/2
Bridgwater	1/5	1/0½
Bridlington	1/6½	1/2
Brighouse	1/7	1/2½
Brighton	1/6	1/1½
Bristol	1/7	1/2½
Broadstairs	1/4½	1/0½
Bromsgrove	1/6	1/1½
Buckley	1/7	1/2½
Bungay	1/3	11½
Burnham-on-Crouch	1/3½	11½
Burnley	1/7	1/2½
Burslem	1/7	1/2½
Burton-on-Trent	1/7	1/2½
Bury	1/7	1/2½
Bury St. Edmunds	1/4½	1/0½
Buxton	1/6½	1/2
Byfleet	1/5½	1/1½
Cambridge	1/6½	1/2
Canterbury	1/4½	1/0½
Cardiff	1/7	1/2½
Carlisle	1/7	1/2½
Carnforth	1/7	1/2½
Castleford	1/7	1/2½
Caterham	1/7	1/2½
Chard	1/4*	1/-
Chatham	1/5½	1/1½
Chelmsford	1/5½	1/1½
Cheltenham	1/5½	1/1½
Chepstow	1/6	1/1½
Chertsey	1/6	1/1½
Chester	1/7	1/2½
Chesterfield	1/7	1/2½
Chichester	1/5	1/0½
Chorley	1/7	1/2½
Cirencester	1/4½*	1/0½
Clacton	1/5	1/0½
Cleveleys	1/7	1/2½
Clitheroe	1/7	1/2½
Cobham (Surrey)	1/6	1/1½
Colchester	1/6	1/1½
Colwyn Bay	1/6	1/1½
Congleton	1/6½	1/2
Coventry	1/7	1/2½
Cranbrook	1/4½	1/0½
Cranleigh	1/5	1/0½
Crawley	1/5	1/0½
Crewe	1/6	1/1½
Cromer	1/4	1/-
Crowborough	1/5	1/0½
Cuckfield	1/5	1/0½
Darlington	1/7	1/2½
Darwen	1/7	1/2½
Daventry	1/5½	1/1½
Deal	1/4½	1/0½
Denbigh	1/5½	1/1½
Derby	1/7	1/2½
Devizes	1/3½*	11½
Dewsbury	1/7	1/2½
Didcot	1/5	1/0½
Diss	1/3½	11½
Doncaster	1/7	1/2½
Dorchester	1/4½*	1/0½
Dorking	1/5½	1/1½
Dover	1/4½	1/0½
Dovercourt	1/5	1/0½
Driffield	1/5½	1/1½
Droitwich	1/6	1/1½
Dudley	1/7	1/2½
Dunstable	1/5	1/0½
Durham City	1/7	1/2½
Eastbourne	1/6	1/1½
E.Glam.(Mon.Val.)	1/6½	1/2
East Grinstead	1/5	1/0½
Edenbridge	1/5	1/0½
Ely	1/3½	11½
Epping	1/7	1/2½
Exeter	1/6†	1/1½
Exmouth	1/5	1/0½
Fakenham	1/3½	11½
Falmouth	1/5½	1/1½
Fareham	1/6	1/1½
Faversham	1/4½	1/0½
Felixstowe	1/5½	1/1½
Filey	1/5½	1/1½
Fleetwood	1/7	1/2½
Flint	1/6½	1/2
Folkestone	1/4½	1/0½
Frinton-on-Sea	1/5	1/0½
Frome	1/4*	1/-
Gainsborough	1/6	1/1½
Gateshead	1/7	1/2½
Gillingham (Kent)	1/5½	1/1½
Glossop	1/7	1/2½
Gloucester	1/6†	1/1½
Godalming	1/5	1/0½
Goole	1/7	1/2½
Gosport	1/6	1/1½
Grantham	1/5½	1/1½
Gravesend	1/6½	1/2
Great Yarmouth	1/5	1/0½
Grimsby	1/7	1/2½
Guildford	1/5	1/0½
Guilsborough	1/5½	1/1½
Halifax	1/7	1/2½
Hanley	1/7	1/2½
Harpenden	1/5½	1/1½
Harrogate	1/7	1/2½
Hartlepools	1/7	1/2½
Harwich	1/5	1/0½
Haslemere	1/5	1/0½
Hastings	1/5	1/0½
Hatfield	1/6	1/1½
Haywards Heath	1/5	1/0½
Hednesford	1/6½	1/2
Hemel Hempstead	1/6	1/1½
Henley-on-Thames	1/5	1/0½
Hereford	1/5*	1/0½
Herne Bay	1/4½	1/0½
Hertford	1/6	1/1½
Heysham	1/7	1/2½
Hitchin	1/5½	1/1½
Hoddesdon	1/6	1/1½
Holt (Norfolk)	1/3	11½
Horley	1/5	1/0½
Horsham	1/5	1/0½
Horwich	1/7	1/2½
Huddersfield	1/7	1/2½
Hull	1/7	1/2½
Hunstanton	1/3½	11½
Huntingdon	1/4	1/-
Ilfracombe	1/5	1/0½
Ingatestone	1/5	1/0½
Ipswich	1/6	1/1½
Isle of Thanet	1/4½	1/0½
Isle of Wight	1/4	1/-
Keighley	1/7	1/2½
Kenilworth	1/7	1/2½
Kettering	1/6½	1/2
Kidderminster	1/6	1/1½
King's Lynn	1/4½	1/0½
Kirkham	1/7	1/2½
Knowle	1/6½	1/2
Lancaster	1/7	1/2½
Leamington	1/6½	1/2
Leatherhead	1/6	1/1½
Leeds	1/7	1/2½
Leicester	1/7	1/2½
Leighton Buzzard	1/4	1/-
Letchworth	1/5½	1/1½
Lewes	1/5	1/0½
Lichfield	1/6	1/1½
Lincoln	1/7	1/2½
Littlehampton	1/5	1/0½
Liverpool	‡§1/8½	¶
Llandudno	1/6	1/1½
Llanelly	1/7	1/2½
London		
12 m. radius	1/8½*	1/3½
12-15 m. radius	1/8*	1/3
Long Eaton	1/7	1/2½
Longton	1/7	1/2½
Loughborough	1/7	1/2½
Louth	1/5½	1/1½
Lowestoft	1/6	1/0½
Luton	1/6½	1/2
Macclesfield	1/6½	1/2
Maidenhead	1/5½	1/1½
Maidstone	1/5½	1/1½
Malvern	1/5½	1/1½
Manchester	1/7	1/2½
Manningtree	1/3½	11½
Mansfield	1/7	1/2½
March	1/4	1/-
Margate	1/4½	1/0½
Market Harborough	1/6	1/1½
Matlock	1/5½	1/1½
Melton Constable	1/3	11½
Melton Mowbray	1/6	1/1½
Merthyr Tydfil	1/6½	1/2
Middlesbrough	1/7	1/2½
Middleton	1/7	1/2½
Middlewich	1/6	1/1½
Milford Haven	1/5	1/0½
Morecambe	1/7	1/2½
Morley	1/7	1/2½
Mundesley	1/4	1/-
Nantwich	1/6	1/1½
Nelson	1/7	1/2½
Newark-on-Trent	1/6	1/1½
Newbury	1/5	1/0½
Newcastle-on-Tyne	1/7	1/2½
Newcastle-u-Lyme	1/7	1/2½
New Forest	1/4	1/-
Newmarket	1/5	1/0½
Newport, Mon.	1/7	1/2½
Newport Pagnell	1/5	1/0½
Northampton	1/7	1/2½
Norwich	1/6½	1/2
Nottingham	1/7	1/2½
Nuneaton	1/7	1/2½
Oakham	1/5½	1/1½
Oldham	1/7	1/2½
Ormskirk	1/7	1/2½
Oxford	1/6½	1/2
Oxted	1/5½	1/1½
Paignton	1/6½	1/2
Peterborough	1/6½	1/2
Plymouth	1/7†	1/2½
Pontefract	1/7	1/2½
Pontypridd	1/6½	1/2
Portsmouth	1/6	1/1½
Port Talbot	1/7	1/2½
Preston	1/7	1/2½
Pulborough	1/5	1/0½
Ramsgate	1/4½	1/0½
Reading	1/6	1/1½
Redditch	1/6	1/1½
Redhill	1/5½	1/1½
Reigate	1/5½	1/1½
Retford	1/5½	1/1½
Rickmansworth	1/6½	1/2
Ripon	1/5½	1/1½
Rochdale	1/7	1/2½
Rochester	1/5½	1/1½
Rugby	1/7	1/2½
Saffron Walden	1/3½	11½
St. Albans	1/6½	1/2
St. Helens	1/7	1/2½
St. Neots	1/4	1/-
Salisbury City	1/4*	1/-
Salisbury Plain	1/4*	1/-
Sawbridgeworth	1/5	1/0½
Saxmundham	1/3	11½
Scarborough	1/6½	1/2
Scunthorpe	1/7	1/2½
Selby	1/7	1/2½
Sevenoaks	1/5½	1/1½
Sheerness	1/4½	1/0½
Sheffield	1/7	1/2½
Shipley	1/7	1/2½
Shoeburyness	1/6½	1/2
Shoreham	1/6	1/1½
Shrewsbury	1/6	1/1½
Sittingbourne	1/4½	1/0½
Skegness	1/6	1/1½
Sleaford	1/5½	1/1½
Slough	1/6	1/1½
Southampton	1/6	1/1½
Southend-on-Sea	1/6½	1/2
Southport	1/7	1/2½
South Shields	1/7	1/2½
Spalding	1/4½	1/0½
Stafford	1/6½	1/2
Staines	1/6	1/1½
Stamford	1/5½	1/1½
Stevenage	1,5½	1/1½
Stockport	1/7	1/2½
Stockton-on-Tees	1/7	1/2½
Stoke-on-Trent	1/7	1/2½
Stourbridge	1/6½	1/2
Stourport	1/6	1/1½
Stowmarket	1/3½	11½
Stratford-on-Avon	1/5½	1/1½
Stroud	1/5½†	1/1½
Sunderland	1/7	1/2½
Sutton Coldfield	1/7	1/2½
Swaffham	1/3	11½
Swanage	1/5*	1/0½
Swansea	1/7	1/2½
Swindon	1/5½*	1/1½
Tamworth	1/6½	1/2
Taunton	1/5	1/0½
Tenterden	1/4½	1/0½
Tewkesbury	1/5½*	1/1½
Thetford	1/3½	11½
Thorpe Bay	1/6½	1/2
Todmorden	1/7	1/2½
Tonbridge	1/5½	1/1½
Torquay	1/6½	1/2
Totnes	1/5†	1/0½
Trowbridge	1/4*	1/-
Truro	1/4	1/-
Tunbridge Wells	1/5½	1/1½
Uppingham	1/5½	1/1½
Uttoxeter	1/5½	1/1½
Wakefield	1/7	1/2½
Walsall	1/7	1/2½
Walsden	1/7	1/2½
Walton-on-Naze	1/5	1/0½
Ware	1/6	1/1½
Warminster	1/4*	1/-
Warrington	1/7	1/2½
Warwick	1/6½	1/2
Wellingborough	1/6½	1/2
Wells (Norfolk)	1/3	11½
Welwyn	1/6	1/1½
Welwyn Gar. City	1/7	1/2½
West Bromwich	1/7	1/2½
Westcliff-on-Sea	1/6½	1/2
Weston-super-Mare	1/6	1/1½
Weybridge	1/6	1,1½
Weymouth	1/4½*	1/0½
Whitby	1/6	1/1½
Whitstable	1/4½	1/0½
Widnes	1/7	1/2½
Wigan	1/7	1/2½
Wigton	1/5½	1/1½
Willington	1/6½	1/2
Wilmslow	1/7	1/2½
Winchester	1/5	1/0½
Windermere	1/5½	1/1½
Windsor	1/6	1/1½
Wisbech	1/4	1/-
Witham	1/5	1/0½
Woking	1/5½	1/1½
Wokingham	1/5	1/0½
Wolverhampton	1/7	1/2½
Woodbridge	1/4	1/-
Worcester	1/6	1/1½
Workington	1/5½	1/1½
Worksop	1/6	1/1½
Worthing	1/5	1/0½
Wrexham	1/6½	1/2
Wroxham	1/4½	1/-
Wycombe	1/5½	1/1½
Wymondham	1/3½	11½
Yeovil	1/5†	1/0½
York	1/7	1/2½

* Painters 1d. less than other Craftsmen. † Painters ½d. less than other Craftsmen. ‡ Plasterers 1/9.

¶ Tradesmen's Labourers 1/3½. Navvies and General Labourers 1/3.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland see page 184.

CURRENT PRICES FOR BUILDING WORK IN LONDON.

Note.—These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10 per cent. on the prime cost, without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts, and from 1s. 6d. per £100 Fire Insurance.

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PRELIMINARIES.

		£	s.	d.
Hoardings, with suitable gate, 8 ft. high	per ft. run	0	3	0
Steel scaffolding for brickwork	per sqre.	1	5	0
Steel scaffolding for stone building	,,	1	10	0
Steel gantry for stone building	per foot run	2	10	0
Office, shed for cement and mess-room	say	75	0	0

EXCAVATOR.

Digging, throwing out and filling into carts and carting to shoot, 5 ft. deep	per yd. cube	0	7	9
Add if stiff clay	,,	0	1	0
Add for every additional 5 ft.	,,	0	0	6
Add if in trenches	,,	0	0	9
Add to price of digging for breaking up concrete foundation and brickwork	,,	0	10	0
Return, fill and ram	,,	0	1	9
Fill into carts and cart away	,,	0	3	6
Planking and strutting to trenches	per foot super	0	0	3½
Planking and strutting to sides of basement excavation next roadway	,,	0	1	4
Needling, flying and raking shores and removing after and carting away	per foot cube	0	6	9

CONCRETOR.

Portland cement and ballast concrete 1-6 in foundations	per yard cube	1	2	0
Add in underpinning in short lengths	,, ,,	0	6	0
Concrete in floors, ¾ in. aggregate, and sand, 1-2-4—				
4 in. thick	per yard super	0	3	4
6 in. thick	,, ,,	0	4	8
Add if trowelled smooth	,, ,,	0	0	9
Add for hoisting, each floor	,, ,,	0	0	3
Concrete 1-2-4 in beams and stanchions	per foot cube	0	1	4
Concrete in lintols, with steel rod reinforcement each 4½ in. width and shuttering	,, ,,	0	4	0
1½ in. centering, with stout supports for concrete floors	per square	2	2	0
Do. to sides and soffites of beams	per foot super	0	0	8
Do. to sides of stanchions	,, ,,	0	0	7
Steel rod reinforcement under ⅝ in. diameter, cut, bent and placed in position	per cwt.	1	8	0
Do. do. over ⅝ in. diameter	,, ,,	1	5	0

BRICKWORK.

Reduced to 1½ brick in flettons, lime mortar	per rod	26	0	0
Add for 2nd hard stocks	,,	8	0	0
Add for Blue Staffordshire	,,	22	0	0
Add to above if in 1-4 cement	,,	0	15	0
Add if in backing to stonework	,,	1	5	0
Add if in underpinning in cement	,,	4	10	0
Add if above 40 ft. to 60 ft. high	,,	2	0	0

SUNDRIES.

Damp course in double course of slates, breaking joint	per foot super	0	0	11
Vertical do. do.	,,	0	1	2
Bitumastic	,,	0	0	5
Lead core	,,	0	0	10
Cut, tooth and bond new to old brickwork	,,	0	1	0
Rake out joints of brickwork	per foot super		0	1
Leave chase for concrete floor	per foot run		0	2
Cut chase 4½ in. deep for concrete floor	,,		1	2
Leave chase for vertical pipe	,,		0	4
Cut chase for vertical pipe	,,		1	4
Rake out joint for flashings and point	,,		0	2
Do. stepped do.	,,		0	4
Do. for asphalt skirting	,,		0	2
Build in ends of timbers	each		0	4
Do. steel joists up to 12 in. deep	,,		0	6
Do. step and make good facings	,,		1	6
Set and flaunch chimney pots	,,		7	6
Render fire openings	,,		2	0
Bed and point door frames one side	,,		3	0
Do. both sides	,,		4	6
Do. window frames, one side	,,		4	0
Setting only register grate	,,	1	0	0
Do. interior hearths and mantles	,,	1	15	0
Do. kitchen range, large	,,	5	0	0
Fix air brick and form flue	,,		2	0
Cut holes for pipes and make good facings, 9 in. wall	,,		2	0
Do. do. 13½ in. wall	,,		2	6
Do. large pipes and do. 9 in. wall	,,		3	0
Do. do. 13½ in. wall	,,		3	6

FACINGS.

Extra for facings in Flemish bond for each 10s. per thousand over the price of Flettons	per foot super	0	1	1½
Pointing facings to approval	,,	0	0	3
Arches extra over Flettons in stocks	per foot super	0	0	8
Do. in reds	,,	1	0	
Do. rubbed and gauged in putty	,,	5	9	

PARTITIONS.

2 in. breeze slab partitions in cement	per yard super	4	0	
3 in. do. do.	,,	4	6	
2 in. hollow-tile do.	,,	4	9	
3 in. do. do.	,,	5	6	

PAVING.

1 in. granolithic paving gauged 5—2	per yard super	2	7	
1½ in. do. do.	,,	2	11	
1 in. × 6 in. coved skirting	per foot run	0	10	

ASPHALT (NATURAL).

½ in. horizontal damp course	per foot super	0	6	
⅝ in. horizontal damp course	,,	0	8	
½ in. vertical do. in two layers	per yard super	9	6	
½ in. in flats, two layers	,,	6	0	
Angle fillet	per foot run	0	3	
6 in. skirting and angle fillet and jointing top edge	,,	1	0	

DRAINAGE.

4 in. best quality glazed stoneware drain pipe, socketed joints, yarn and neat cement, on and including cement concrete bed, 18 in. wide and 6 in. thick, and benched up on each side of pipe	per foot run	2	4	
6 in. do. do. do. but concrete bed 20 in. and 6 in. thick	,,	3	0	
9 in. do. do. do. but concrete bed 23 in. wide and 6 in. thick	,,	4	11	
Extra for 4 in. bends	each	2	6	
Do. 6 in. ,,	,,	3	6	
Do. 9 in. ,,	,,	5	6	
Extra for 4 in. junctions	,,	2	9	
Do. 6 in. ,,	,,	3	9	
Do. 9 in. ,,	,,	6	0	
4 in. stoneware gully, encased in concrete and making good granolithic paving	,,	13	0	
6 in. do.	,,	14	0	
9 in. do.	,,	18	6	
4 in. stoneware interceptor, and surround with concrete	,,	1	5	0
6 in. do.	,,	1	10	0
9 in. do.	,,	2	10	0

MASON.

Bath stone and all labour fixed	per foot cube		10	9
Portland stone and all labour, fixed	,, ,,		17	9
York stone templates, fixed	,, ,,		12	6
York stone steps, fixed	,, ,,		16	0
York stone cills, fixed	,, ,,	1	2	0

SLATER.

24 × 12 Bangor slates laid to 3 in. lap secured with zinc nails	per square	3	18	6
20 × 10 do.	,,	3	13	6
16 × 8 do.	,,	3	11	6
Extra to eaves course	per ft. run		0	9
Extra to top edge and square abutments	,,		0	4½
Extra to verge and labour only, bedding and pointing	,,		0	7½
Raking, cutting and waste	,,		0	7
Half-round red ridge tile	,,		1	2
Half-round blue ridge tile	,,		1	8
Fixing only soakers	per dozen		0	9
Red hand-made sand-faced tiles laid to 4 in. gauge, nailed every fifth course with galvanised iron nails	per square	3	0	0
Extra to eaves course	per foot run		0	5
Extra to top edge and square abutments	,, ,,		0	3½
Extra to verge and bed and point	,, ,,		0	11
Half-round ridge	,, ,,		1	4
Bonnet hips, including cutting and waste (both sides)	,, ,,			8
Valley tiles, including cutting and waste (both sides	,, ,,		3	6
Fixing only soakers	per dozen		0	9

CARPENTER AND JOINER.

Fir framed in plates	per foot cube		4	0
Do. joists	,, ,,		4	6
Do. roofs, etc.	,, ,,		5	3
Do. trusses	,, ,,		6	9

		½ in.	1 in.	1½ in.
Deal rough close boarding	per sq.	32/-	38/-	47/-
Battens for slating	,,	10/-	11/-	12/-

Centre for arches	per foot super		1	6
Gutter boards and bearers	,,		1	0

CURRENT PRICES FOR BUILDING WORK IN LONDON—continued.

FLOORING.

	¾in.	1in.	1¼in.	1½in.
Deal edges shot ..... per sq.	—	41/-	49/-	58/-
Do. tongued and grooved .. „	—	46/-	55/-	67/-
Do. matchings..... „	42/-	47/6	—	—
Moulded skirtings, including backings and grounds ..... per foot super	1/4	1/7	1/9	2/3
Mitres ..... each	-/6	-/8	-/9	1/-
Stop ends ..... „	-/3	-/4	-/4	-/6

SASHES AND FRAMES.

	s.	d.
One-and-a-half in. moulded sashes .....per foot super	1	9
Two in. do. do. .. .. „ „	2	0
Add for fitting and fixing ..... „ „	0	2
Deal cased frames, 1 in. linings, 1½ in. pulley and stiles, 2 in. moulded sashes, in squares, hardwood cill, double hung with pulleys, lines and weights, average size ..... „ „	3	3

DOORS.

	1¼in.	1½in.	2in.
Two-panel square framed .....per foot super	2 1	2 3	2 5
Four-panel do. ..... „ „	2 4	2 6	2 9
Two-panel moulded both sides .. „ „	2 6	2 9	2 11
Four-panel do. do. .... „ „	2 9	2 11	3 2

FRAMES.

	s.	d.
Deal wrot moulded and rebated .....per foot cube	12	0
Hardwood do. do..... „ „	36	0

	1in.	1½in.	1½in.
Plain deal jamb linings, framed..per foot super	1 7	1 8	1 11
Deal shelves and bearers ..... „ „	1 2	1 4	1 7
Add if cross-tongued ..... „ „	-/2	-/2	-/2
Deal window board, tongued to oak cill and bearers ..... „ „	1 6	1 9	2 0
Deal moulding, tongued and grooved to window board.....per foot run			0 6

BEADS.

	s.	d.
Deal architrave, including mitres per sectional inch. ..... per foot run	0	1
Glazing beads, deal fixed ..... „ „	0	2
Do. fixed with brass screws and cups ..... „ „	0	4
Rebate ..... „ „	0	0½
Groove ..... „ „	0	0½
Notching ..... „ „	0	2
Tongued and grooved angle ..... „ „	0	3½
Rounded heel and hollow ..... „ „	0	2½

STAIRCASES.

	1 in.	1¼ in.	1½ in.	2 in.
Deal treads and risers on and including rough brackets.....per foot super	2/-	2/3	2/8	—
Deal strings, wrot and framed „ „	—	—	2/2	2/8
Housings.....each				0 9
Mahogany handrail, average 3 in. x 3 in. .....per ft. run				5 6
Add if ramped ..... „ „				11 0
Add if wreathed ..... „ „			1 2	0

FIXING ONLY IRONMONGERY.

	£	s.	d.
Barrel bolts		0	8
Sash fasteners		1	0
Casement fasteners		1	2
Casement stays		1	2
Flush bolts		1	6
Cupboard locks		1	6
Rim locks and furniture		2	0
Mortice locks and furniture		4	0
Floor springs, including oil	1	0	0
Overhead springs		5	0

FOUNDER AND SMITH.

	£	s.	d.
Rolled steel joists .....per cwt.	1	1	0
Compound girders ..... „	1	4	0
Stanchions ..... „	1	6	0
Roofwork ..... „	1	12	0

RAINWATER GOODS.

	3 in.	4 in.	5 in.	6 in.
Half-round eaves gutters and fixing .....per foot run	1/3	1/4	1/10	1/11
Ogee do. do..... „ „	1/5	1/6	2/1	2/9
R.W. pipe and fixing .....per foot run	1/7	2/1	—	—
Extra for shoes and bends ....each	3/3	4/6	—	—
Do. stopped ends ..... „	1/3	1/7	2/-	3/-
Do. nozzles and angles .. „	2/7	3/-	4/2	4/8

PLUMBER.

	s.	d.
Milled lead and laying in flashings and gutters..per cwt.	46	0
Do. in flats ..... „	45	0
Extra labour and solder in cesspools .....each	6	0
Welt joint .....per foot run	0	4
Soldered seam ..... „ „	1	6
Copper nailing—close ..... „ „	0	3
Do. do. open ..... „ „	0	2
Soldered dots .....each	2	0
Bossed ends to rolls ..... „	0	6

	¾in.	¾in.	1in.	1¼in.	1½in.	2in.	4in.
Lead overflow per ft. run	-/10½	1/3	1/9	2/1	2/6	3/2	—
„ service „	1/4	1/11	2/7	3/7	4/4	5/9	—
„ soil... „		—	—	—	—	—	7/-
Bends in pipe each	—	—	—	—	2/-	2/3	5/6
Wiped solder joints .... „	2/-	2/6	2/9	3/3	3/6	4/3	6/-
Lead traps and cleaning screws .. „	6/6	9/6	—	—	—	—	—
Stopcocks and joints .... „	11/6	14/6	18/6	—	—	—	—

PLASTERER.

	s.	d.
Render, float and set in lime and hair .....per yard super	2	0
Do., narrow widths .....per foot super	0	4
Do., and set with Sirapite.....per yard super	2	3
Do., narrow widths .....per foot super	0	4
Do., and set with Keenes .....per yard super	3	0
Do., narrow widths .....per foot super	0	5½
Add sawn lathing.....per yard super	1	4
Add metal lathing (not including hangers or runners for suspended ceilings)..... „ „	2	4
Portland cement screed ..... „ „	1	7
Do., plain face ..... „ „	3	3
Mouldings in plaster .....per 1 in. girth	0	1½

GLAZIER.

	s.	d.
24 oz. sheet .....per foot super	0	7
26 oz. sheet ..... „ „	0	8
Obscured sheet ..... „ „	0	10
Double Cathedral ..... „ „	0	10
Majestic ..... „ „	0	10½
Flemish ..... „ „	0	10½
Pinhead Morocco ..... „ „	0	10½
¼ in. rough rolled or cast plate ..... „ „	0	10½
¼ in. wired cast plate ..... „ „	1	2

PAINTER.

	s.	d.
Preparing and distempering, two coats .....per yard super	0	7½
Knotting and priming..... „ „	0	7
Plain painting, one coat..... „ „	0	9
Do., two coats ..... „ „	1	2
Do., three coats ..... „ „	1	9
Do., four coats ..... „ „	2	4
Graining ..... „ „	2	3
Varnishing, twice ..... „ „	1	9
Sizing ..... „ „	0	3
Flatting ..... „ „	0	7
Enamel ..... „ „	1	1
Wax polishing .....per foot super	0	6
French polishing ..... „ „	1	2
Preparing for and hanging paper.....per piece	2/- to 4/-	

NEWS ITEMS

The Cost of Fires in 1937.

The total cost of the fires in Great Britain and Ireland during 1937, according to one account, was £9,529,000. Except in 1936, for which the total was £10,897,000, the figures have not been equalled or exceeded since 1929, when the losses were estimated at £11,784,000.

Sea Coast Site for Sale or Lease.

The Wallasey Corporation is offering a sea coast site at New Brighton, Wallasey, Cheshire, for sale or lease. The site, containing 13,500 sq. yds., is described as being suitable for immediate development; it forms a well-defined parallelogram abutting on the Marine-promenade for about 180 yards, and is in close proximity to the New Brighton pier, open-air baths, railway station, and omnibus terminus.

Prime Minister at B.I.F. Banquet.

The Prime Minister has consented to be principal guest and speaker at the banquet to be given by the Government at the Mansion House, by the courtesy of the Lord Mayor, on February 21, to mark the opening of the British Industries Fair. The President of the Board of Trade, Mr. Oliver Stanley, will preside.

Control of Overcrowding in Scotland.

The second Order bringing into full operation in any place in Scotland the provisions of the Housing (Scotland) Act, 1935, for the control of overcrowding, has just been issued by the Department of Health for Scotland. The Order applies to the burgh of Queensferry, and fixes March 1, 1938, as the "appointed day." This is the first Order to apply to the whole area of any local authority in Scotland.

PRICES CURRENT OF MATERIALS*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

CHANGES OF THE WEEK: Lead advances by 25s., Linseed Oil by 1d. and Turps by 2d. Red Lead drops by £8.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads:

	£ s. d.
Best Stocks	4 15 0
Second Hard Stocks	4 8 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
"Phorpres"	*2 6 3	Flettons, B'lln'se	3 4 0
Flettons at King's Cross	*2 6 3	Best blue Pressed Staffs.	3 6 6
De., grooved for Plaster.	*2 8 3	Do., Bullnose	3 16 6
		Blue Wire Cuts	7 4 0
White Midhurst Facing Bricks (delivered London site)			4 0 0
"Phorpres" Whites (King's Cross)			3 11 3
"Phorpres" Rustic Facings (King's Cross).			*3 6 3

Best Stourbridge Fire Brick:—
2½ in. 7 15 0 3 in. 8 15 0
* Delivered to site in W.C. district, 4/3 extra per 1,000.

GLAZED BRICKS—

Best White		D'ble Str'tch'rs	32 10 0
Ivory and Salt Glazed		D'ble Headers	29 10 0
Stretcher	24 0 0	One side and two ends	33 10 0
Headers	23 10 0	Two sides and one end	34 10 0
Quoins, Bullnose and 4½ in. Flats	30 10 0	Splays and Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup.	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2¼"	2 9	12" x 9"x 4"	3 9

Per yard super d/d. Free on site, London.

	s. d.	
Thames Ballast	7 3 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	6 3 " "	
Pit Sand	7 9 " "	
Washed Sand	8 3 " "	
¾ in. Shingle	7 3 " "	
¾ in. Broken Brick	11 3 " "	
Pan Breeze	8 3 " "	

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

	£ s. d.
4 ton loads and upwards site. Per ton	2 2 0
1 ton to 4 tons site	2 4 0
Alongside Vauxhall in 80-ton lots	1 18 0
"Ferrocrete" Rapid Hardening Cement:—	
4 ton loads and upwards site	2 8 0
1 ton to 4 tons site	2 10 0
Alongside Vauxhall in 80-ton lots	2 4 0

Stored in Reserved Bins at Works 1/6 ton extra.

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett, if returned in good condition within three months, carriage paid.

"Aquacrete" Water Repellent "Blue Circle" Cement, 30/- per ton extra on ordinary "Blue Circle" Portland Cement prices.

"Colocrete" Nos. 1 and 2 Coloured Rapid Hardening Portland Cement in 1-cwt. paper bags free (non-returnable) in 1-ton lots and upwards site 3 6 0

"Snowcrete" White Portland Cement in 1-cwt. paper bags free (non-returnable) 1 ton and upwards site 8 15 0

Super Cement (Waterproof) paper bags free.	3 12 0
Roman Cement	6 15 0
Parian Cement	6 0 0
Keene's Cement, White	6 0 0
" " Pink	5 12 6

Cementone Colours for cement according to tints per cwt. from £2 16 0.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	3 2 0	Sirapite, Coarse	3 10 6
" White	3 12 6	" Finish	3 18 6
Pioneer	3 10 6		
Super Carbo	2 7 6	4-ton loads & over London Area, paper bags free.	
Carbo Setting	2 12 6		
Best Ground Blue Lias Lime	1 17 6	Grey Stone Lime	2 2 0
		Chalk Lime	2 2 0
Granite Chippings	1 12 0	Hair per cwt.	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carr, paid.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube 2 10½

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station, per ft. cube. 2 3
Delivered free on rail Nine Elms, S.R., per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work. 3d. per cubic ft. extra.

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 5
Do. do. delivered on road waggons as above stations, per ft. cube 4 0
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ¼d. beyond 30 ft

HOPTON-WOOD STONE—
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb. 14 0
Sawn two sides 22 6

HOPTON-WOOD STONE—
Sawn three or four sides 27 9

YORK STONE, BLUE.—*Robin Hood Quality.*
Delivered at any Goods Station, London.
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super 5 0
6 in. rubbed two sides, ditto " 5 6
3 in. sawn two sides slabs (random sizes) " 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) " 1 6½
1½ in. to 2 in., ditto " 1 3½

HARD YORK—
Delivered at any Goods Station, London.
Scappled random blocks Per ft. cube 6 3
6 in. sawn two sides landings to sizes (under 40 ft. super) Per ft. super 5 1½
6 in. rubbed two sides, ditto " 6 1½
4 in. sawn two sides slabs (random sizes) " 3 1½
3 in. ditto ditto " 2 5
2 in. self-faced random flags. Per yd. super 7 6

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 × 11.	£28 10	3 × 6.	£23 10
4 × 9.	28 10	3 × 11.	27 10
4 × 8.	25 10	2 × 11.	27 10
4 × 7.	25 10	3 × 9.	24 10
3 × 8.	23 10	2½ × 9.	24 10
3 × 7.	23 10	3 × 4½	23 10
2½ × 7.	23 10	3 × 4.	23 10

PLANED BOARDS.

1 × 11.	£28 10	1 × 9.	£26 10

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
½	18/-	1¼	30/-
½	21/-	1½	37/6
1	23/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	24/-
1¼	31/-
1½	38/6

MATCHING (BEST).

Inches.	per sq.
¾	19/-
1	21/-
1	27/6

ins. BATTENS.	s. d.
¾ × 2 per 100 ft.	2 8

SAWN LATHS.

	s. d.
Per bundle	2 5

HARD WOOD.

1 INCH AND UP THICK.

	£ s. d.
Average price for prime quality.	
Dry Austrian Wainscot, per ft. cube	0 17 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 13 0
Dry American and/or Japanese plain Oak, per ft. cube	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 6
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 6
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. 4 7 0 to	5 10 0

HUDDERSFIELD
Building Society

Experience has shown that the arrangements made by the Huddersfield to assist occupier borrowers have given the utmost satisfaction, and the service rendered has been greatly appreciated by builders' clients.

Write for information to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or to the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director

WHEN YOU INVEST—A HOUSE IS BEST

SLATES.

First quality slates from Penryhn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 5 0	18 by 10	16 10 0
22 by 12	26 5 0	18 by 9	14 17 6
22 by 11	23 12 6	16 by 10	14 7 6
20 by 12	23 2 0	16 by 8	11 6 0
20 by 10	20 15 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£4 2 6
ditto hand-made ditto	4 17 6
Ornamental ditto	5 2 6
Hip and valley tiles (per dozen) Hand-made	0 3 6
Machine-made	0 3 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted	£17 10 0
Plain Compound Girders	20 10 0
" " Stanchions	22 10 0
In Roof Work	27 10 0

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	18 5 0	⅜ in. to ½ in.	16 15 0
⅛ in.	17 5 0	⅝ in. to 2½ in.	16 5 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £10 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars. Sizes ⅛in. to ⅜in.	Sizes ½in. to 2in.	Standard Flanges. Sizes ½in. to 2in.	Standard Fittings.
	%	%	%	%
Gas	55	60	57½	53⅛
Water	52	57½	57½	50
Steam	48⅛	53⅛	46½	45
Galv. gas	45	50	46½	43⅛
Galv. water	40	45	38⅛	38⅛
Galv. steam	33⅛	38⅛	33⅛	35

C.I. HALF-ROUND GUTTERS—London Price ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/9½	1/4½	5⅛d.
3½ in.	2/1	1/6	6½d.
4 in.	2/1	1/8	8d.
4½ in.	2/2½	1/11	10½d.
5 in.	2/4½	2/-	1/0½

O.G. GUTTERS.

3 in.	2/1	1/10	8½d.
3½ in.	2/3½	1/10	9½d.
4 in.	2/5	1/11	10½d.
4½ in.	2/6	2/2½	1/0½
5 in.	2/10	2/6½	1/2½

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles, stock angles	Branches, stock angles
2 in.	2/8½	1/8	2/5½
2½ in.	2/9½	1/11	2/11½
3 in.	3/8	2/4½	3/7
3½ in.	4/1	2/10½	4/1½
4 in.	4/9½	3/5	5/-

Less 20 per cent. trade discount.
Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock,

	Pipe.	Bends, stock angles, stock angles	Branches, stock angles
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	3 5	2 5	2 11
2½ in. " ..	3 10	2 8	3 8
3 in. " ..	4 2	2 11	4 4
3½ in. " ..	4 7	3 8	5 0
4 in. " ..	5 0	4 0	5 10

L.C.C. COATED DRAIN PIPES.—London Prices ex Stock,

	Pipe.	Bends, stock angle, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3in. per yd. in. 9ft. lengths	4 9	5 4	8 9
cwt. qr. lbs.			
4 in. " 1 1 20. .	6 9	6 3	11 0
5 in. " 1 2 22. .	8 4	11 0	16 11
6 in. " 2 0 6 . .	10 0	12 10	21 3

Gaskin for jointing 45/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 15 0	to	14 15 0
Staffordshire Crown Bars—			
Good merchant quality	15 10 0	to	17 0 0
Staffordshire Marked Bars	18 0 0	..	19 0 0
Mild Steel Bars	13 10 0	..	14 10 0
Steel Bars, Ferro-Concrete quality, basis price	15 0 0	..	16 0 0
Hoop iron, basis price	15 0 0	..	16 0 0
" Galvanised	25 0 0	..	27 0 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*Contd.*)

IRON—	Per ton in London. £ s. d.	£ s. d.
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g. ..	17 5 0 ..	18 5 0
" " 24 g. ..	18 5 0 ..	19 5 0
" " 26 g. ..	19 5 0 ..	20 5 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	18 10 0 ..	19 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. ..	20 10 0 ..	21 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	20 0 0 ..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g	20 20 0 ..	23 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g	22 10 0 ..	24 10 0
Sheets, Galvanised, Flat Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0 ..	24 0 0
Best Soft Steel Sheets, 22 g. and 24 g	22 0 0 ..	24 10 0
Best Soft Steel Sheets, 26 g.	24 10 0 ..	25 10 0
Cut Nails, 3 in. to 6 in.	19 10 0 ..	21 10 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s.	d.
Seamless Copper tubes (basis).	per lb.	1	3
Strong sheet	"	1	3½
Thin.	"	1	4½
Copper nails	"	1	3½
Copper wire	"	1	3½

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.
½ in. ¾ in.
32/- 47/- per doz.

CHROMIUM PLATED TOILET SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.
½ in. ¾ in.
42/- 61/6 per doz.

SCREW DOWN STOP COCKS FOR IRON.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
27/6 42/6 75/- 181/- 264/- 409/- per doz.

SCREW DOWN STOP COCKS WITH TWO UNIONS FOR LEAD.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
46/6 68/6 106/- 205/- 307/- 590/- per doz.

DOUBLE NUT BOILER SCREWS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 10/6 16/- 29/- 39/- 56/- per doz.

HEAVY CROYDON BALL VALVES.
½ in. ¾ in. 1 in. 1¼ in. 1½ in.
36/- 59/6 96/- 205/- 278/- per doz.

CAPS AND SCREWS.
1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 18/6 32/- 44/- 48/- per doz.

BRASS FERRULES OR SLEEVES.
1¼ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/6 22/6 31/- 45/6 per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.
1½ in. 1¾in. 2 in. 3 in.
8 lb. Lead P...24/6 32/6 49/- 72/- per doz.
8 lb. Lead S...29/6 38/6 59/- 93/- per doz.

SOLDER.—Plumbers' 1/2; Tinmen's, 1/4; Blow-pipe, 1/7 per lb.

PAINTS, &c.

		£	s.	d.
Raw Linseed Oil, in pipes	per gallon	0	3	0
" " " in barrels	"	0	3	2
" " " in drums	"	0	3	4
Boiled " " in barrels	"	0	3	5
" " " in drums	"	0	3	7
Turpentine, in barrels	"	0	3	3
" in drums (10 gals.) ..	"	0	3	5
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		50	0	0

Extra for 1-cwt kegs over 5-cwt. casks is 2/9 cwt.

GENUINE WHITE LEAD PAINT.
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Pauls," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered 69 0 0
Red Lead, Dry (packages extra). ...per ton 42 0 0
Best Linseed Oil Putty .....per cwt. 0 14 9
Size. XD quality ..... fkn. 0 3 6

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	25 15 0
Pipe in coils	25 5 0
Soil pipe	30 15 0
Compo pipe	32 10 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £15 10 0

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine Do.	Do.	0 16 0
Fine Copal	Do.	0 18 0
Pale Copal	Do.	1 0 0
Pale Opal Carriage	Do.	1 4 0
Best Do.	Do.	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	Do.	0 18 0
Fine Copal Cabinet	Do.	1 2 0
Fine Copal Flatting	Do.	1 0 0
Hard Drying Oak	Do.	0 18 0
Fine Hard Drying Oak	Do.	0 19 6
Fine Copal Varnish	Do.	1 0 6
Pale Do.	Do.	1 12 0
Best Do.	Do.	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent).		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY AND SELECTED GLAZING QUALITY.

per ft. super.		per ft. super
18 oz. O.Q. 2½d	32 oz. O.Q.	6 d.
18 " S.Q. .... 2¾d.	32 " S.Q.	6½d.
24 " O.Q. .... 3½d.	Obscured Sheet, 18 oz.	3 d.
24 " S.Q. .... 3¾d.	" " 24 "	4½d.
26 " O.Q. .... 3¾d.	Fluted ..... 21 oz.	9d.
26 " S.Q. .... 4½d.	Em'lld 18 oz., 5½d., 24 oz.,	6½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft. s. d.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ⅜ in.	6½d.
Rough cast double rolled, ½ in.	6½d.
Figured rolled, etc., white	6½d.
Figured rolled, etc., tinted	9½d.
Rolled Sheet	6d.
White rolled cathedral	6d.
Tinted rolled cathedral	8½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½
Wire Rolled, ¼ in. thick.	0 9½
Wired Cast, ¼ in. thick.	0 9½
"Calorex" Sheet, 21 oz.	2 6
" 32 oz.	4 0
" Cast, ¼ in. thick	0 10
" " ⅝ in. thick	1 0
" " ¾ in. thick	1 2

"VITA" GLASS.

Clearsheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate not exceeding 1 foot	1 6
Do. do. 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes.	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide	2 6

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen.....	1/7½	1/7	1/6½	1/6	1/5½	1/5
Labourers	1/2½	1/2¼	1/2	1/1½	1/1	1/0½

Aberdeen	A	East Fife (embraced by a line from Largs to Kingsbarns and eastward to the Coast)...	B	Hamilton	A
Ayrshire	A	East Lothian.	A	Inverness	*
Banff	B	Edinburgh	A	Inverurie.	A¹
Berwickshire	A²	Fifeshire (with the exceptions of towns in East Fife which are under Grade B)	A	Kincardineshire	A²
Bridge of Allan.	A	Forfarshire	A	Kinross-shire	A
Broughty Ferry	A	Glasgow	A	Lanarkshire	A
Clackmannanashire.	A	Greenock.	A	Mid-Lothian	A
Doune	A			Monifieth	A
Dunblane	A			Moray and Nairn ....B	
Dumbartonshire	A			Newport	A
Dumfriesshire.	A			Peebleshire	A²
Dundee	A			Perth	A
Dunoon	A				

Perthshire	A
Peterhead	A
Renfrewshire	A
Rothesay	A
Roxburghshire	A¹
St. Andrews	A
Selkirkshire	A¹
Stewartry	A²
Stirlingshire	A
Stornoway	A¹
Tayport	A
West Lothian	A

*This town has its own rates: Masons, 1/8; Carpenters, 1/8; Slaters, 1/8; Plumbers, 1/8; Plasterers, 1/8; Painters, 1/8; and Labourers, 10d. to 1/-.

The information given in this table is copyright. The rates of wages in England and Wales are given on page 180.

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

ABERDEEN.—HOUSES.—The T.C. Housing Committee proposes erection of 310 houses at Kaimhill, near Bridge of Dee, to the west of Anderson-drive, at £150,000.

ARGYLLSHIRE. — REBUILDING. — Arisaig House, which was destroyed by fire, is to be rebuilt at £25,000. The contract for the joinery work has been placed with Messrs. Alexander Hall and Sons, Aberdeen.

BUCKHAVEN.—HOUSES.—The T.C. has decided to erect 240 houses at Crossroads.

CHAPELTON.—RECONSTRUCTION. — Plans to be prepared for a scheme of reconstruction and extensions for new police station and offices. Mr. John Stewart, architect, Albert-street, Motherwell.

EDINBURGH.—FLATS.—The Dean of Guild Court has passed plans for a block of flats comprising 88 houses in Falcon-avenue and Falcon-road, Morningside, at £60,000. The architect is Mr. J. R. MacKay, 4, Melville-street.

FALKIRK.—SHOWROOMS. — The Corporation, with Mr. William Gibson, Weir-street, Burgh Architect and Surveyor, has approved of alterations and additions at the High-street for new gas showrooms and offices.

FORT WILLIAM. — HOUSES.—The British Aluminium Company are to erect 150 houses for their workers. The joinery work, estimated to cost £25,000, has been placed with Messrs. Alexander Hall and Sons, Aberdeen.

GRANGEMOUTH.—EXTENSIONS.—The Dean of Guild Court has granted permission to the T.C. to proceed with a scheme of extensions to the Victoria Library.

INVERNESS.—SCHOOLS. — The Property and Works Committee of the C.C. has approved a new Catholic school in Huntly-street, at £10,500. The architects are Messrs. Reid and Forbes, of Edinburgh Other new buildings approved by the committee include schools at Roybridge, Eynort and Shelibost, Skye.

INVERNESS-SHIRE.—REBUILDING. — Beaufort Castle, which was destroyed by fire, is to be rebuilt. Messrs. Alexander Hall and Sons, Aberdeen, have received the contract for the joinery work, estimated to cost £10,000. The mason work will be carried out by Messrs. Logan, of Muir of Ord.

KILWINNING.—BUILDING.—The Corporation has in hand a scheme for a central hotel.

LANARKSHIRE.—BATHS. — Messrs. MacLean and Co., 67, Glasgow-road, Wishaw, have received the contract, valued at £11,363, for pithead baths at Wester Auchengeich Colliery.

PENICUIK.—HOUSING.—The Housing Committee of the T.C. agreed to proceed with the clearance of uninhabitable and unsanitary houses at the Shottstown and Fieldsend area. The scheme consists of the demolition of those properties and the erection of 250 new houses at an approximate cost of £80,000 to £100,000.

POLMONT.—ADDITIONS. — Plans are in hand for reconstruction and additions at Angle Park for new billiard rooms, the architects being Messrs. Wilson and Wilson, Vicar-street, Falkirk.

STRANRAER. — HOUSES.—The T.C. has decided to complete the Dick's Hill housing scheme by 78 houses.

WESTQUARTER. — SCHOOL.—Plans are to be prepared for a new public school, estimated at £30,000, for which the architect is Mr. John A. W. Grant, F.R.I.A.S., 25, Rutland-square, Edinburgh, and not as incorrectly stated in our issue of January 7.

TRADE NEWS

A New Glazing Bar.

Messrs. Williams and Williams, Ltd., of Reliance Works, Chester, have patented and are producing the aluminium glazing bar that is shown in the diagram. In this bar the glass is held by a continuous self-locking spring aluminium cover strip that gives cushioned support to absorb vibration or shock, and to compensate for expansion and contraction, whilst holding the glass firmly without storm clips or similar expedients. The manufacturers claim that because it is weatherproof the bar can be used at exceptionally low pitches.

Ventilators, formed in the same metal, are made with all their weathering flanges as integral parts of the aluminium bar section. Lanterns, like the roof glazing, are free from the added weathering that normally reduces the effective area of the glass where light is most required. The finished appearance is clean and workmanlike, as may be seen from the illustration of the Dudley Zoo. The lightness of the bar is effective in reducing dead-weight, which is of importance in such installations as factories, where machinery may set up vibration in the roof.

Asbestos-Cement Sheeting.

Messrs. L. B. Simpson, 14, Philpot-lane, E.C.3, announce "Eternit" asbestos-cement sheet with a "granited" surface, suitable for decorative wall lining in public halls, schools, hospitals and hotels, etc. "Eternit," which is made in eight colours in imitation of granite, is claimed to be fire-resisting and sanitary, and to have a hard surface which cannot be scratched. Samples and all information may be obtained upon request.

Sash-hung Windows.

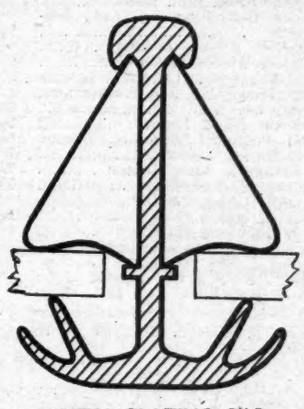
Safety, economy and efficiency are merits claimed by London and Provincial Marketing Agencies, Ltd., 11, Sackville-street, Piccadilly, W.1, for the "Ever-Safe" improved type of sash-hung window. This type of window permits both sashes to be lowered into the room and rest in a horizontal position, thus simplifying cleaning. Full particulars regarding new windows, conversion of existing windows and remodelling of sashes can be obtained from the agents, London and Provincial Marketing Agencies, Ltd.

Change of Telephone Number.

Sika-Francois, Ltd., waterproofing contractors, of 39, Victoria-street, London, S.W.1, have changed their telephone number to Abbey 1571.

An Amalgamation.

An agreement has been signed between Dunlop Plantations, Ltd., and the Limmer and Trinidad Lake Asphalt Co., Ltd., for the promotion and laying of Semtex Plastic Rubber Flooring. This work will be undertaken by a jointly owned company registered as Semtex, Ltd.; the office is at Steel House, Tothill-street, Westminster, S.W.1. Tel. Whitehall 6776. Semtex plastic rubber flooring is mixed on site and applied cold in a plastic condition. It is claimed that its durable, resilient, waterproof and non-skid properties are combined with a pleasing comfort and quietness under wear, whilst it can be supplied in an extensive variety of colours and finishes.



A NEW GLAZING BAR
This view is of roofing at the Dudley Zoo (Messrs. Tecton, Architects), in which the new glazing bar, described and detailed on this page, is used.

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TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

* Denotes *accepted.*
† Denotes *Provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Bagshot.—Alterations and additions to school, for the Surrey E.C.:—
*T. Swayne & Sons, Guildford £5,787

Barnsley.—152 houses on the California-gardens estate, for the T.C. Mr. Harold Taylor, Borough Engineer and Surveyor:—
*W. H. Young, Charlestown, Ackworth, near Pontefract £52,600

Belford.—Houses, for the R.D.C.:—
Six at Bamburgh—
*Thomas B. Gregory £2,746 7 6
Road on Belford housing site—
*McLaren & Co. 1,310 5 4
Road on Beadnell housing site—
*McLaren & Co. 1,186 1 11

Bethnal Green.—Works, for the B.C.:—
Steel sashes for town hall extension—
F. A. Norris & Co., Ltd. ..... £1,681 0 0(*a*)
The Morris-Singer Co. ..... 1,613 5 0(*a*)
Crittall Manufacturing Co., Ltd., 1,612 2 1(*b*)
Henry Hope & Sons, Ltd. ..... 1,583 19 0(*b*)
*Williams & Williams, Ltd., Reliance Works, Chester ..... 1,535 17 10(*b*)
(*a*) Less 2½ per cent.
(*b*) Less 2½ per cent. monthly account.
Supply of windows for the east wall of the small swimming bath in order to provide better ventilation—
Williams & Williams, Chester ... £128 17 9
J. Williams & Sons (Cardiff), Ltd., Cardiff 127 3 5
Helliwell & Co.,* Ltd., Brighouse 126 10 6
Crittall Manufacturing Co., Ltd., Holborn 120 16 6
*Henry Hope & Sons, Ltd., Smethwick 109 2 0

Birmingham.—Reconstruction of the "Gough Arms" Hotel in Upper Gough-street, for the Ansells Brewery Co., Ltd., Lichfield-road, Aston, Birmingham. Messrs. Trepass & Son, architects, 1, Church-street, Warwick:—
*W. C. Skinner, Ltd., 316, Birchfield-road, Birmingham, 20.

Blackpool.—Works, for the T.C.:—
Erection of various buildings at the new gas works, Marton—
*Atherton Bros., Ltd., Blackpool.
Extensions to low-pressure hot-water heating apparatus at the Claremont junior school—
*C. Seward & Co., Ltd.
Shop and office premises on the site bounded by Corporation-street, Market-street, Town Hall-street and West-street—
*Herbert H. Vickers & Son, Blackpool.
Alterations to old manual room, Claremont senior boys' school—
*Pickover & Sykes.
New science room, gas, water and electric fittings, Claremont senior school—
*W. Coop, Ltd.

Blackpool.—Reconstruction of Feldman's Theatre, Hounds Hill, for Messrs. Feldham, Bankhey-street. Messrs. Derham, Mackeith & Partners, architects, Empress-buildings, Church-street:—
*H. Earnshaw, Mossom-lane, Blackpool.

Bolton.—Alterations and additions to infectious diseases hospital, Hulton-road, for the Health Committee:—
Contractors—*R. J. Tyson, Wellington Mills, Bolton.
Brickwork—*S. Talbot & Sons, Harris-street, Bolton.
(Estimated cost: £78,000.)

Bradford.—Works, for the T.C.:—
Thornton grammar school—
Masons—
*A. D. Hoyle, Ltd. £21,647 0 0
Joiners—
*J. Briggs & Son 11,245 0 0
Slaters—
*H. Nelson, Ltd. 832 0 0
Plumber—
*D. Wiggins 2,790 0 0
Plasterers—
*Crabtree & Berry 6,145 0 0
Painter—
*A. Lister 764 5 10
Heating installation—
*S. Parsons & Co., Ltd. 4,178 13 4

Electrical installation—
*L. Crawford 1,148 16 0
Swain House school — additional classrooms, etc.—
Masons—
*A. D. Hoyle, Ltd. £1,890 0 0
Joiners—
*L. & W. Morrell 1,217 15 6
Slaters—
*Giblin & Son 164 0 0
Plumbers—
*C. Howroyd 568 19 3
Plasterers—
*J. Goodyear & Sons 639 10 0
Painter—
*A. Lister 91 12 2
Electrical installation at Highfield modern school—
*J. Carter & Son £205 11

Bucklow.—(*a*) Reinforced concrete water tower, High Legh, and erection of dwelling-house and garage, and (*b*) laying approximately 72,000 yds. of water mains, for the R.D.C. Mr. H. V. Shaw, surveyor, 26, Station-buildings, Altrincham:—
(*a*) *J. Henshaw & Sons, 10, Chatham-street, Liverpool, 7.
(*b*) *W. Mulcaster & Co. (Contractors), Ltd., Haslington, nr. Crewe.

Bury.—Sports pavilion at Clarence recreation ground, Walmersley-road, for the T.C. Borough Engineer:—
*Spencer & Clarke, Ltd., Elton Saw Mills, Bury.

Cannock.—Eight non-parlour type houses at Black Halve-lane, Essington, for the R.D.C.:—
*R. Edmunds, Cheslyn Hay, Walsall £3,382 10

Cardiff.—School at Colchester-avenue, for the T.C. Mr. G. H. Whitaker, architect:—
*D. Davies & Sons, Ltd., Trade-street, Cardiff £44,948 10 8

Carlisle.—Junior school in Kirkland-road, for the Catholic Authorities of SS. Mary and Margaret:—
*J. & R. Bell, Nelson-street, Carlisle £9,500

Carlisle.—Rebuilding the old "Cumberland Wrestlers," for Carlisle and District Estate Management Scheme, 19, Castle-street. Mr. H. Redfern, F.R.I.B.A., architect, State Management Districts Central Office, Kings-buildings, Dean Stanley-street, Westminster, S.W.1:—
*J. & R. Bell, Nelson-street, Carlisle.

Chepping Wycombe.—Health centre at Dyke Meadow for the T.C. Mr. J. A. Parkinson, M.A., Borough Surveyor, and Mr. V. H. B. Peart, L.R.I.B.A., Architect-Assistant. Quantities by Mr. A. E. McEwan-Waghorn, F.S.I.:—
Fleet & Roberts, Aylesbury £9,497
G. H. Gibson & Son, Ltd., High Wycombe 9,374
Eadie & Co., Wolverhampton 9,257
Y. J. Lovell & Son, Beaconsfield 9,248
H. J. & A. Wright, Gt. Missenden ... 9,136
W. A. James & Sons, Maidenhead ... 9,134
‡Geo. Biggs & Son, Gt. Kingshall 8,988
(Subject to approval of M.H.)

Cradley Heath.—Senior Council school with accommodation for 480 children at Homer Hill, for the Worcestershire E.C.:—
*J. Harper & Sons (Blackheath), Ltd., Blackheath, near Birmingham ... £30,300

Darfield.—30 houses and 20 bungalows, and construction of roads and sewers, for the U.D.C.:—
*Darwin's (Builders), Ltd. £18,014

Dewsbury.—376 houses at Overthorpe Park, Thornhill housing scheme, for the T.C. Mr. M. H. Forward, Borough Architect:—
Bricklayer and mason—
84 houses—*A. C. Smith.
84 houses—*A. L. Greenwood, Liversedge.
84 houses—*Haywood & Pierson.
84 houses—*H. Booth & Son, Batley.
40 houses—*Harlow & Milner.
(Cost, £53,522.)
Carpenter—
111 houses—*Wortley & Boothroyd, Ravensthorpe, Mirfield.
75 houses—*J. W. Thornton.
75 houses—*Walter West & Son (Dewsbury), Ltd.
76 houses—*S. Armitage & Sons, Ltd.
40 houses—*Harlow & Milner.
(Cost, £27,638.)
Slater's work—
118 houses—*W. R. Thompson & Co., Ltd.
188 houses—*H. Nelson, Ltd., Bradford.
(Cost, £9,096.)
Plumber and glazier—
188 houses—*A. Scott.
186 houses—*F. Newsome, Ltd.
(Cost, £15,555.)
Plasterer—
188 houses—*A. Idle & Sons, Heckmondwike.
188 houses—*W. Lockwood, Batley.
(Cost, £8,946.)
Painter—
376 houses—*J. A. Schorah, Ltd. £1,643
(Rest of Dewsbury.)

Erith.—Convenience in Belvedere recreation ground, Lessness Heath, for the U.D.C. Mr. John H. Clayton, M.Inst.M. and Cy.E., engineer and surveyor. Quantities by the engineer:—
G. H. Skinner, Belvedere £507 13 8
H. Friday & Son 387 0 0
F. Ling & Sons, Ltd. 376 2 3
S. H. Alabaster, Ltd. Welling ... 364 13 1
E. Proctor & Sons, Plumstead ... 360 0 0
C. F. Godwin & Son 336 18 1
*Franklin & Co. (Erith), Ltd., Courtleet Works, Erith 305 19 5
F. J. Henesy, Bexleyheath 301 3 0
(Remainder of Erith.)

Fleetwood.—Church at the junction of Agnew-road and Shakespeare-road, for the Trustees of the Congregational Church. Mr. R. S. Garnett, architect, 23, Lord-street:—
*Brown & Jackson, Elm-street, Fleetwood.

Fleetwood.—School clinic and child welfare centre, for the Lancashire E.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, Preston:—
*J. Cryer & Sons, Poulton-road, Fleetwood £4,381 8 7

Fulham.—Works, for the B.C.:—
Demolition of the 49 cottages in the Field-road Nos. 1 and 2 clearance areas—
C. R. Godleman, London £1,850 0
Lewisham Demolition Contractors, Lewisham 1,410 0
C. Fowler, London 1,200 0
Wackett Bros., Ltd., London 1,185 0
London Demolition Co., Ltd., Isleworth 995 0
J. Ashton & Sons, London 936 10
J. Moore & Son, London 930 0
Road Foundation Co., Ltd., London 875 0
Coles Demolition and Excavations, Ltd., Isleworth 875 0
Wiliment Bros., London 866 0
W. H. Penfold & Sons, Ltd., London 825 0
H. J. Moyes, London 775 0
F. Savage & Sons, Kenton 725 0
Hudsons, Ltd., London 738 0
Thomas Oakley, Luton 700 0
A. R. Wright & Son, London 685 0
B. L. Pickford, Guildford 547 0
Gorst & Co., Ltd., Welling 495 0
‡Stanley Looms, Leicester 265 0
Walter Hobbs & Co., London 250 0
Peters Demolition Co., Ltd., Weybridge 55 0
Heating installation required at the power station—
Young, Austin & Young, Ltd. £6,356 0
G. N. Hayden & Sons, Ltd. 5,997 0
J. Jeffereys & Co., Ltd. 5,548 0
‡Bastian & Allen, Ltd. 5,455 10
Richard Crittall & Co., Ltd. 5,422 0

Gateshead.—Licensed premises at Lobley Hill, for the Newcastle Breweries, Ltd., to be known as "Wagon Hotel." Messrs. J. Oswald & Sons, architects, Northumberland-street, Newcastle-on-Tyne:—
*W. Jackson, 5, Audley-road, Gosforth.

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Glasgow.—New Government buildings at the Glasgow Exhibition, Bellahouston. Mr. H. J. Rouse, architect, Martins Bank-buildings, Liverpool:—
*Excavation, brick and mason—*Brown, Fraser & Co.
New South African pavilion. Mr. George Miller, architect, 15, Blythswood-square—
*Excavation, brick and mason—*Cowieson, Ltd.
Pavilion for women and children of the Empire. Miss J. Brodie, architect, 143, West George-street—
*Excavation, brick and mason — *W. Shaw & Co., Ltd.
Garden club and colonnade at the Scottish Exhibition. Sir John Burnet, Tait & Lorne, architects, Montague-street, London, W.C.1—
*Excavation, brick and mason—*J. Laidlaw & Sons, Ltd.
(All of Glasgow.)

Glasgow.—Extension to the Royal Institute for the Outpatients' Department. Mr. James Miller, architect, 15, Blythswood-square. Messrs. James Barr & Son, measurers, St. Vincent-street:—
*Excavation, brick and mason—*P. & W. Anderson, Ltd.
*Joinery, carpentry and ironmongery—*W. Lightbody.
*Plumber work and sanitary fixtures—*D. Stewart & Sons, Ltd.
*Plaster work and lathing—*W. Forbes & Son.
*Tile and terrazzo—*Toffolo, Jackson & Co.
(All of Glasgow.)

Glasgow.—Bank premises in Duke-street, for the British Linen Banking Corporation, Ltd. Mr. John Keppie, architect, West Regent-street. Messrs. Currie & Brown, measurers, Holland-street:—
*Excavation, brick and mason—*Findlay & McGuehan.
*Joinery, carpentry and ironmongery—*J. Cochrane, Ltd.
*Glazier and allied works—*J. P. McPhee, Ltd.
*Plumber work and sanitary fixtures—*J. Paterson (Plumbers), Ltd.
*Plaster and lathing—*J. C. McIntyre, Ltd.
*Electrical engineering installation—*McKerrow & Scott, Ltd.
(All of Glasgow.)

Glasgow.—Works, for the Corporation. Mr. Thomas Somers, architect, Office of Public Works:—
Alterations and additions to the Milton Registration Offices—
*Scott & Wilson, Glasgow £657 2 6
Heating engineering installation to Nurses' Home at Woodlee Hospital—
*G. N. Haden, Ltd., Glasgow ... 2,008 6 8

Halstead.—Block of business premises at 66-68, High-street, for the Sterling Estates, Ltd. Messrs. Hillier, Parker, May & Rowden, architects, 27, Maddox-street, W.1:—
*George Moss & Sons, Ltd., Lady Margaret-road, Southall.

Halstead.—Houses and bungalows, for the U.D.C.:—

	80 Non-Parlour.	12 Parlour.
W. L. Smee, Clacton	£37,630	£6,156 0 0
H. G. Bragg, Halstead	27,940	5,220 0 0
L. G. Finch, Halstead	—	5,076 10 0
Aldred Bros., Halstead	—	5,624 12 0
Rowson & Butcher, Gosfield	26,322	5,220 0 0
*Jepp & Sons, Braintree	26,234	4,800 0 0

Six bungalows—
W. L. Smee, Clacton £1,950 0 0
Aldred Bros., Halstead 1,833 13 6
Rowson & Butcher, Gosfield ... 1,638 0 0
Jepp & Sons, Braintree 1,488 0 0
L. G. Finch, Halstead 1,470 8 0
*H. G. Bragg, Halstead 1,470 0 0

Hambledon.—Working-class houses at Shamley Green, for the R.D.C.:—
*A. Grove £4,155

Hebburn-on-Tyne.—22 semi-detached houses in Black-road. Messrs. T. A. Page, Son & Bradbury, architects, 15, King-street, South Shields:—
*J. Carr, Westgate-road, South Shields.

Hemsworth.—Installation of electricity in 62 council houses at South Kirkby, for the R.D.C. Mr. W. T. Lynam, engineer and surveyor, Market-place:—
*G. Silkstone, Thrybergh, Rotherham £398 17 4

Howdon-on-Tyne.—New British Legion club at Coachopen. Messrs. W. Dixon & Son, architects, Collingwood-street, Newcastle-on-Tyne:—
*R. Carse & Sons, Morpeth.

Hull.—Extensions to Kirkella telephone exchange, for the T.C. Mr. D. Harvey, F.R.I.B.A., City Architect:—
*Robinson & Sawdon, 97, Alexandra-road, Hull £911

Ipswich.—Block of shops and flats in the High-street, for Mr. W. E. Sneezum. Mr. R. Woodhouse Beales, architect, 3, Neale-street:—
*Sadler & Sons, Richmond-road, Ipswich.

Isle of Ely.—School at Outwell, for the E.C.:—
*J. Eggitt & Sons, Ltd.

Kilkeel.—145 labourers' cottages, for the R.D.C.:—
*W. E. Jones, Annalong.
*F. Charlton, Ballymartin.
*W. J. Hanna, Carginragh.
*L. M'Kesley, Drumee.
*W. Cromie, Dunavan.
*P. Fitzpatrick, Clough.
*M'Manus Bros., Kilkeel.

Kirkintilloch.—Miners' welfare centre at the colliery at Wester. Mr. J. Forshaw, architect, Romney House, London, S.W.1:—
Excavation, brick and mason—*A. M. McDougall & Co., Ltd., Glasgow.

Laoghis.—Six cottages at Stradbally, for the Board of Health:—
*T. Carbery, Ballintubbert £1,620

Lawford.—Five cottages, etc., on the Fox Ash estate, for the Land Settlement Association, Ltd., Broadway-buildings, Broadway, S.W.1. Mr. A. D. Sheppard Fidler, M.A., B.Arch., A.R.I.B.A., architect:—
*Pudney & Son, Earls Colne.

¶**London.**—The following works contracts have been placed by the War Office during the week ended January 13:—
Preston—conversion of riding school to garage—A. Fenton, Manchester.
Aldershot, Wellington and Stanhope Lines—erection of garages—G. Kemp Straud & Co., Ltd., Aldershot.
Hereford—artificers' work—J. Hiles & Son, Hereford.
Aldershot—erection of grocery store—Lee Bros. (Aldershot), Ltd., Aldershot.

¶**London.**—H.M.O.W. have placed contracts for work for week ended January 13:—
H.M. Stationery Office, Harrow—steam boilers—Daniel Adamson & Co., Ltd., Engineering Works, Dukinfield.
Cairo Embassy—silverware—Carrington & Co., Ltd., 130, Regent-street, W.1; The Goldsmiths & Silversmiths Co., Ltd., 112, Regent-street, W.1; and Crichton Bros., 22, Old Bond-street, W.1.
Hawarden, Flint., Telephone Exchange—erection—W. F. Humphreys, Ltd., Acrefair, Wrexham.
Chairs, ladder back—Thomas Glenister, Ltd., Temple Works, High Wycombe; W. Hands & Sons, Ltd., Dashwood-avenue, High Wycombe; Dressing-chests—M. Zinkins, 203, Mare-street, Hackney, E.8.
Chairs, W.7—W. Hands & Sons, Ltd., 36-40, Dashwood-avenue, High Wycombe.
and R. & H. C. Mines, Downley, High Wycombe.
23, Sanctuary-buildings—internal painting and cleaning—Oates Bros., 13, Killyon-road, S.W.8.
Leeds Temporary Sorting Office—alterations—J. Rushworth & Sons, Victoria Works, Rawdon, near Leeds.

¶**London.**—List of new contracts placed by H.M. Air Ministry for the week ended January 15:—
Great Rissington—underground and overhead cables—Cox Walkers, Ltd., Darlington.
Great Rissington—internal wiring—N. G. Bailey & Co., Leeds.
Boscombe Down—various buildings and external services—Anglo-Scottish Construction Co., Ltd., London.
Netheraven—alterations and additions to various buildings—W. Bell & Sons, Andover.

London.—Building for printing and enlarging photographs, rear of 243, Eltham High-street. Mr. Robert Kevan, architect, 159-163, Eltham High-street:—

W. E. Wright (Eltham), Ltd.	£975
J. E. Evans, Woolwich	949
A. C. Wright, Eltham	923
*W. Martin, Eltham	807

Manchester.—Offices and laboratories in Knowsley-street, Monsell-street and Cambridge-street, Cheetham, for the Co-operative Wholesale Society, Ltd., Balloon-street. Plans prepared in Architects' Department, Balloon-street:—
*Building Department, C.W.S., Ltd., Vere-street, Manchester.

Manchester.—Branch bank adjoining the "Museum Inn," corner of Worsley-avenue, and Moston-lane, Moston, for Messrs. Martins Bank, Ltd., 7, Water-street, Liverpool, 2. Messrs. T. Milnes-Foden & Partners, architects, 199, Deansgate. Quantities by Mr. T. Sumner Smith, Clifton Lodge, Park-crescent, Victoria Park:—
*Brew Bros., Cadishead.
Terra-cotta — *Leeds Fireclay Co., St. Ann's-Square.
Electric light—*Hall Bros., 102, Oldham-road, Miles Platting.
Heating—*Craig & Mills, Ltd., 155, Wilbraham-road, Chorlton-cum-Hardy.
Flat roofs—*C. Musker & Bros., Ltd., Bingham-street, Swinton.
(Remainder of Manchester.)

Manchester.—(*a*) Sulphur colour buildings and (*b*) canteen to works, Bottomley-side, Crumpsall, for the Imperial Chemical Industries, Ltd., Hexigon House, Blackley.
(*a*) *Builders*—*Russell Building & Contracting Co., Ltd.
Engineering work—*Cook & Ferguson, Ltd.
Plumbing—*J. A. McCrea & Sons.
Painting—*W. J. Roberts, 11, Green-lane
(*b*)—*E. E. Coleman, Ltd, Sale.
(Remainder of Manchester.)

Manchester.—Reconstruction of building for 4 lock-up shops, in Mosley-street, York-street and West Mosley-street, for the United Investors' Co-operative Society, Ltd, 37, Mosley-street. Mr. P. Cummings, architect, 31, King-street West:—
Contractors — *Moston Brick & Building Co., Ltd., Kenyon-lane, Moston, Manchester.
Steam cleaning—*Bidder Engineering & Construction Co., Ltd., 48, Burnage Hall-road, Levenshulme.

Manchester.—Loading dock to the transport depot in Wentworth-street, for Messrs. Bouts Tillotson Transport, Ltd., Wentworth-street. Mr. A. Pickles, architect, Hopwood Hall, Halifax:—
*Edward Bidgood & Co., Ltd., Black Bull-street, Leeds, 10.

Manchester.—Warehouse to works in Lane End-road, Burnage, for Messrs. Renold & Coventry Chain Co., Ltd., Arkwright House, Parsonage. Messrs. H. S. Fairhurst & Son, architects, Chancery-chambers, 55, Brown-street:—
*Bovis, Ltd., 84, South Audley-street, London, W.1.

Monaghan.—Hospital buildings, for the Cavan and Monaghan Mental Hospital Committee:—

J. J. Smith, Carrickulle	£121,857
Murphy Bros., Cork	102,322
R. Cullen, Monaghan	98,400
Phœnix Building Works, Tullamore	94,192
*Gleeson, Ltd., Sheffield (Eire)	93,924

Morecambe and Heysham.—Extensions to bazaar stores, for Messrs. Marks & Spencer, Ltd., 91, Baker-street, W.1. Messrs. Norman Jones & Rigby, architects, Williams Deacon Bank-buildings, Lord-street, Southport:—
*Bovis, Ltd., 82, South Audley-street, London, W.1.

Murton Colliery.—Rebuilding of "Colliery Inn," for Messrs. James Deuchar, Ltd., brewers, Newcastle-on-Tyne. Mr. E. M. Lawson, architect, Barras-buildings, Barras Bridge, Newcastle-on-Tyne:—
*W. Hall (Contractors), Ltd., Derwentwater-road, Gateshead.

Newcastle-on-Tyne.—Warehouses and a garage in Shields-road, for Messrs. F. Harrison & Co. Messrs. Arthur & Kirkup, architects, Swinburne-street, Gateshead:—
*L. Ather, Durham-road, Gateshead.

Newport.—24 houses on the Bryngias estate, for the T.C.:—
†J. A. Sparkes £9,684

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Northumberland.—Practical instruction rooms at the Ellington-Linton school, for the C.C. Mr. W. W. Tasker, County Architect, Newcastle-on-Tyne:—
*W. S. Wilson, Cambois, Blyth.

Nuneaton.—28 houses in Vernons-lane, for the T.C. Mr. R. C. Moon, A.M.I.C.E., Borough Surveyor:—
*H. S. Savage, 60, Manchester-road, Nuneaton £10,236

Plymouth.—Storage warehouse at Millbay Docks, for the G.W.R. Mr. P. Emerson Culverhouse, F.R.I.B.A., chief architect, Paddington Station, W.2:—
*A. N. Coles (Contractors), Ltd., Queen Anne's Battery, Plymouth.

¶**Portsmouth.**—Works, for H.M. Civil Engineer-in-Chief's Department, Admiralty:—
Shed and offices—*F. J. Privett, Ltd., Cottage-grove, Portsmouth.

Renfrew.—120 houses on the site at Porterfield. Messrs. Abercrombie & Maitland, architects, County-square, Paisley. Messrs. Fisher & Paton, measurers, High-street, Paisley:—
Excavation, brick and mason—*J. Crawford, Potterhill.
Joinery, carpentry and ironmongery — *J. N. Clark, Paisley.
Plumber work and sanitary fixtures—*J. Paterson, Paisley.
Plaster and lathing—*S. Holmes, Ruthergien.
Glazing and allied works—*G. G. Kirk, Ltd., Glasgow.
Painter and allied works — *P. McKerracher & Son, Glasgow.
Electrical fittings and installation — *W. S. Watson, Ltd., Glasgow.
Iron railings and gates, etc.—*A. Peters, Ltd., Glasgow.
Cement and roughcasting, etc. — *S. Holmes, Burnside.

Rotherham.—Fire station, firemen's dwellings and heating and hot-water installation, for the T.C. Borough Engineer:—
Fire station and dwellings—*Beeden, Ltd., Thrybergh, Rotherham.
Heating and hot water—*Deane & Beale, Ltd., 3, Monument-street, London, E.C.3.

Saffron Walden.—56 houses in Little Walden-road, for the T.C. Mr. H. A. Cook, B.Sc. Eng. (Lond.), A.M.Inst.C.E., architect and surveyor:—
*Winton Hayes, Ltd., Potton £21,637

Salop.—Alterations and additions to Wellington Public Assistance Institution, for the C.C. Mr. A. G. Chant, A.R.I.B.A., 5, Belmont, Shrewsbury:—
*J. Carver, Wellington £3,079 17 4

Scarborough.—Swimming pool, for the T.C. Mr. H. V. Overfield Assoc.M.Inst.C.E., Borough and Water Engineer:—
Works, etc.—*Fred Whitaker & Co., Ltd., Osmondthorpe-lane, York-road, Leeds.
Filtration plant—*Paterson Engineering Co., Ltd., Windsor House, Kingsway, London, W.C.2.

Sheffield.—Offices in Brightside-lane, for Messrs. S. Rhodes & Co., Ltd., Town Hall-chambers. Mr. J. Southam, architect, 30, Goddard Hall-road:—
*Works Department, Town Hall-chambers, Sheffield.

Sheffield.—Workshop, for Messrs. W. F. Corker & Son, Harolds-chambers, Figtree-lane. Mr. W. G. Gibbs, architect, 22, Paradise-square:—
*J. W. Holmes, Abbot Works, Bishop-street, Sheffield.

Smallburgh.—Cottages, for the R.D.C.:—
Three pairs at Hickling—
*W. W. Lambert £2,275
Four pairs at Stalham—
*Tooley & Youngs 2,716
Two pairs at Tunstead—
*B. E. Gotts 1,638

South Shields.—Works, for the T.C.:—
Alterations to the boilerhouse at the junior instruction centre—
*Henderson Bros. (1936), Ltd., Tyne Dock £117
Sub-trades in connection with the conversion of the old boys' school into a school for mentally defective children—
Heating installation—*W. H. Dunn & Co.
Plumbing—*T. L. Petersen.
Ironwork—*G. Grey.
Electrical—*A. J. Wares.
(All of South Shields.)

South Shields.—652 houses at Little Horsley Hill, for the T.C.:—
*G. Bailey, Ltd., South Shields £231,000

Southsea.—Warehouse and offices in Blackfriars-road, for Messrs. W. P. Winter & Son, Ltd. Messrs. A. E. Cogswell & Sons, architects, Prudential-buildings, Portsmouth:—
*F. J. Privett, Ltd., Cottage-grove, Portsmouth.

Stockport.—Erection of "Ladybrook" Hotel in Fir-road, Bramhall, for Messrs. Richard Clarke & Co., Ltd., Reddish Brewery. Messrs. G. Westcott & Son, architects, 31, Byrom-street, Deansgate, Manchester, 3:—
*Cooper Bros. (Builders), Ltd., Catherine-street, Macclesfield.

Spalding.—Houses, roads, sewers and appurtenant works on the Goodfellows-road housing site, Spalding Common, for the U.D.C. Mr. Raymond W. Hastings, clerk :—

	Houses.	Roads, etc.
L. P. Longlands, Peterborough	£14,628 18 6	£2,521 0 0
G. Campion, Ltd., Peterborough	12,977 0 0	1,629 18 6
P. P. Taylor (Doncaster), Ltd., Doncaster	12,680 0 0	1,477 8 11
*G. A. Thurston & Sons, Knight-street, Pinchbeck	12,313 0 0	1,483 5 5

Stowmarket.—18 houses fronting Bury-road, and construction of road off Cemetery-lane, for the U.D.C. Mr. S. H. Senior, surveyor, 17, Station-road :—

*Bailey & Goates, Cross-street, Sudbury £6,653 3 6

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Granite Chips, etc.
Rockery Stone.
1-2½, 4 and 6 Ton Rollers for Hire.
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Telephone ELTHAM 1742

Sunderland.—Fish quay with stores, for the River Wear Commissioners :—

*Bladen & Co., Ltd., Glasgow.
(Estimated cost, £45,000.)

Sunderland.—New groyne at the harbour mouth to check coastal erosion. Mr. W. H. S. Tripp, engineer to the River Wear Commissioners :—

*Building & Construction Co., Ltd., London.

Tottenham.—Extension to premises in Philip-lane, for Messrs. Lieberman & Harding. Messrs. S. Clifford Tee & Gale, architects, Moorgate Hall, Moorgate, E.C.2 :—

*W. H. Wensell, Ltd., 357, Seven-sisters-road, N.15. (Cost about £408.)

Wallasey.—Installation of a heating system at the new maternity hospital, for the T.C. :—

*C. Seward & Co., Ltd., Station-road, Chester £1,830

Wallasey.—Sub-stations, for the T.C. :—

Church-lane—
*W. Bradshaw £497

Saltburn-road—
*W. Bradshaw £268

Wandsworth.—Works for the B.C. Interior painting works on the Council's housing estates :—

Nos. 172/268 (even), Southcroft-road, and 47/50 (cons.), Eastbourne-road, Furzedown housing estate—
*R. A. Jewell, Ltd. £359 0 0

Nos. 28/48 and 66/144 (even), Topsham-road, Elmwood House estate—
*H. & P. Matthews £402 0 0

Conveniences, Garratt-park—
*Walker (Tooting), Ltd. £524 10 0

Combined gardener's hut and children's shelter at Garratt-park—
*J. Harrison (London), Ltd. £209 0 4

Warrington.—Rebuilding shop and offices, 33, Bridge-street, for Messrs. England & Sons, 234, Bradford-street. Mr. Charles Hartley, L.R.I.B.A., architect, 128, Buxton-road, Stockport. Quantities by Mr. T. Sumner Smith, Clifton Lodge, The Crescent, Victoria-park, Manchester :—

*H. Fairclough, Howley, Warrington... £2,575

Wellingborough.—Factory in Weavers-road, for the Ideal Clothiers, Ltd., Victoria-road. Messrs. Talbot Brown & Fisher, FF.R.I.B.A., architects, 18, Burystead-place :—

*C. Adams & Co., Finedon-road, Wellingborough.

Whickham-on-Tyne.—Sewerage scheme for Sunniside, for the U.D.C. Messrs. Sandford, Fawcett & Partners, engineers, Victoria-street, London, S.W.1 :—

*Alstone Limestone Co., Pearl-buildings, Northumberland-street, Newcastle-on-Tyne.
(Cost about £44,000.)

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Whiston.—137 houses in various parishes, for the R.D.C. Messrs. Gornall & Wainwright, architects, Britannic House, 8, Hardshaw-street, St. Helens :—

*J. L. Rawsthorne & Co., Edwards-lane, Speke, Liverpool.
(Subject to the approval of the M.H.)

Whitby.—30 houses, for the R.D.C. :—

*Ball, Thomas & Lister, Ltd., Redcar.

Wimborne Minster.—26 houses on the Leigh Park estate, for the U.D.C. Mr. C. W. Prance, surveyor :—

	Per house.
*J. H. Wilson & Sons, Parkstone	£315

Yarmouth.—Works for the T.C. :—

Police station in Lowestoft-road, Gorleston—
*E. Moore & Son, Ltd. £6,990 0

Electrical installation—
*J. W. Lamb & Sons £155 19

24 houses at Cobholm—
*H. R. Middleton & Co., Ltd. £9,945 0

20 houses at Bells Marsh-road—
*H. A. Holmes & Sons, Ltd.

22 houses at Gordon-road—
*H. R. Middleton & Co., Ltd. £8,800 0

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